CONSTITUTION OF THE HEALTH COMMITTEE

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Vice-Chairman : Alderman T. J. Wise.

Aldermen: E. T. Cozens, J.P., *Chairman* Port Health and Staff Sub-Committees.
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Town Clerk: Josiah Green, Esq.

City Treasurer: E. M. Tapson, Esq.

PUBLIC HEALTH STAFF

Medical Officer of Health (City, Port and Schools):
R. H. Parry, M.D., F.R.C.P., D.P.H.

Deputy Medical Officer of Health :
I. G. Davies, M.D., M.R.C.P. (Lond.), D.P.H.

Principal Medical Assistants :

Maternity and Child Welfare:
Marguerite G. Hughes, M.B., Ch.B.

School Medical Service:
*A. A. Dalby, M.C., M.R.C.S., L.R.C.P.

Chest Specialist:
C. J. C. Faill, F.R.C.P., Ed.

Venereal Disease:
A. E. W. McLachlan, F.R.S.E., M.B., Ch.B., D.P.H.

Radiology:
J. V. Sparks, B.A., M.R.C.S., L.R.C.P., M.R.C.P., D.M.R.E.

Mass Miniature Radiography:
E. Evelyn Mawson, M.D., Ch.B.

Bacteriology:
K. E. Cooper, B.Sc., Ph.D., L.R.C.P., M.R.C.S., A.I.C.

Clinical Pathology:
Dorothy Woodman, M.D., M.Sc., M.R.C.S., L.R.C.P.

Assistant Medical Officer of Health:
R. J. Irving Bell, M.R.C.S., L.R.C.P., D.P.H.

Port Health:
D. T. Richards, M.R.C.S., L.R.C.P., D.P.H.

Ham Green Hospital and Sanatorium:
B. A. I. Peters, B.A., M.D., B.C., D.P.H.

Southmead General Hospital, Snowdon Road Hospital, and Mortimer House Maternity Annexe:
P. Phillips, M.Sc., M.D., Ch.B.

Frenchay Park Sanatorium:
E. Evelyn Mawson, M.D., Ch.B.

Babies' Home:
Greta Hartley, M.D., M.M.

Residential Nurseries:
A. Alison Craig, M.D., Lond., D.P.H., D.C.H.

Other Principal Assistants :

Administration:
J. G. Watson.

Chief Sanitary Inspector:
F. J. Redstone, F.S.I.A., M.R.San.I.

Acting Matron, External Nursing Services:
Miss L. M. Bendall.

Public Analyst:
F. E. Needs, F.I.C.

Veterinary Surgeon:
G. E. Henson, F.R.C.V.S.

* On active service.

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REPORT OF THE SCHOOL MEDICAL OFFICER

REPORT OF THE MENTAL DEFICIENCY ACTS COMMITTEE

CITY AND COUNTY OF BRISTOL

ANNUAL REPORT, 1944

My Lord Mayor, Ladies and Gentlemen,

I have the honour to submit my report on the state of the public health and sanitary circumstances of the city for the year 1944. The present report, again abridged for reasons of economy in paper and labour, follows the lines suggested by the Ministry of Health in Circular 49/45, dated 19th March, 1945, particular attention being paid to subjects of current interest, *e.g.*, tuberculosis, venereal disease and the care of premature infants and illegitimate children.

The report is arranged in two main parts: (*a*) a summary of the work of the department during the year; (*b*) appendices, including special reports and statistics.

In presenting this report, I wish to express my indebtedness for the courtesy at all times extended to me by the chairmen and members of the various Committees, particularly to the chairmen of the Health and Education Committees, and to the chief officers of the Corporation. To my colleagues in the Health Department I express my sincere thanks for their help and willing co-operation. Especially I wish to thank Miss W. M. Cooper, with whose help this report has been collated.

I am, my Lord Mayor, Ladies and Gentlemen,
Your obedient Servant,
R. H. PARRY,
Medical Officer of Health.

Public Health Department, Bristol.
August, 1945.

I. VITAL STATISTICS.

Tables covering the vital statistics of the city are included in the Appendix, pages 53-61. These figures are based on information supplied by the Registrar-General, who has directed attention to the fact that the estimates of the numbers and distribution of the non-civilian population are not available and that non-civilian deaths and non-civilian notifications are excluded. The estimated population from 1940 onwards is therefore the civilian population only, and the various rates calculated on this basis are in consequence slightly over-stated.

Estimated civilian population (mid-year) ...	405,530
Marriages ...	3,071
Rate per 1,000 population ...	15.15
Births ...	7,767
Rate per 1,000 population ...	19.15
Stillbirths ...	218
Rate per 1,000 total births ...	27
Deaths ...	4,457
Rate per 1,000 population ...	10.99
Natural increase per 1,000 population ...	8.16
Deaths under 1 year ...	268
Rate per 1,000 births ...	35
Deaths under 1 month ...	143
Rate per 1,000 live births ...	18
Deaths from puerperal causes ...	10
Rate per 1,000 total births ...	1.25

In the following short paragraphs are mentioned the principal features of the published figures.

Population.

With the above reservations the population of the city, as estimated by the Registrar-General at mid-1944 is 405,530, an increase of 34,730 on the figure supplied for mid-1943.

Marriages (Rate: 15.15 per 1,000 population).

Last year there was a fall in the marriage rate following ten years of successive increase. This year (1944) has brought a further decrease in the number of marriages resulting in the lowest rate since 1926. This tendency to lower rates might have been anticipated, having regard to the very high level of the marriage rate during the earlier war years due to marriages at an earlier age than the pre-war average.

Births (Rate: 19.15 per 1,000 population).

The above birth rate of 19.15 compares with a rate of 17.6 for England and Wales. The total number of births registered in the city was 8,366 (7,230 in 1943). This figure includes 1,204 (1,039 in 1943) cases not resident in the city, but on the other hand, the number of Bristol babies born outside the boundary was 605, giving a corrected figure of total Bristol births of 7,767.

Of the total births registered in the city, 6,351 occurred in institutions, and of these 2,963 were at Southmead Hospital. Since Mortimer House was opened in July, 166 babies have been born there. Up to the time of its closing as a maternity annexe 249 babies had been born at Cedar Hall, which is outside the Bristol registration area.

Stillbirths (Rate: 27.30 per 1,000 total births).

There were 218 stillbirths registered. This is slightly above the number for the previous year, 209—which was a year of low record—but represents a lower proportion of the total births in a new record low rate of 27.30 compared with an average of 37 for the 17 years during which stillbirths have been registerable.

The number of outside city cases, 61, exceeds last year's figure of 49.

Illegitimacy (Rate: 70.7 per 1,000 live births).

There has been a further increase in illegitimate births, both in actual number and in percentage of the total births.

There were 615 illegimate births within the city in 1944, a quarter of these being outside city cases, and 101 babies of Bristol unmarried mothers were born outside the city, giving a corrected total of 549 illegitimate births. In my report of last year I drew attention to the special circumstances of the enforced absence from home of the male partner preventing legitimisation by marriage which might account in part for the increased rate. It may be noted that the proportion of illegitimate babies born away from the residential settlement of their parents is twice that of the legitimate.

Deaths (Rate: 10.99 per 1,000 population).

The death rate for 1944, apart from the years 1934-35, is the lowest recorded and compares with a rate of 11.6 for England and Wales. In considering this fact it may also be borne in mind that the average age of the population has been considerably raised by the absence of the younger adult section with the longest expectation of life.

The preparation of the areal comparability factor has not yet been resumed by the Registrar-General, and it is not possible therefore to compare exactly the local death rate with that for the whole country or with the mortality or other local areas.

Natural Increase (Rate: 8.16 per 1,000 population).

The increased number of births and the relatively low death rate during 1944 have combined to give the highest natural increase rate since 1921.

Infant Mortality (Rate: 35 per 1,000 live births).

The above rate constitutes a new low record; the previous best being 37 for the year 1942.

There were 332 infant deaths in the city in 1944, but 70 non-residents must be deducted and six deaths of Bristol children outside the city included to correct the figure to the Registrar-General's total of 268.

The infant mortality rate amongst illegitimate babies was also a low record at 44 per 1,000 illegitimate live births, being 30 per cent. in excess of the rate for legitimate live births for the year. This is the third year in succession when the difference between the mortality rates for legitimate and illegitimate infants has been considerably reduced—an average difference of over 100% for many preceding years.

Neo-Natal Deaths (Rate: 18.41 per 1,000 live births).

Registrar-General's figures for this age group are not available, but locally corrected figures show that 143—53% of the total deaths of infants under 1 year of age—occurred during the first month of life.

This gives a low record neo-natal death rate of 18.41 per 1,000 live births, compared with 27.7 in the previous year and 21.46 the previous best rate in 1939. Premature births (44%), congenital malformation (18%) and atelectasis (16%) remain the chief causes of death in this age group.

Maternal Mortality (Rate: 1.25 per 1,000 total births).

During the year 10 Bristol mothers died from maternal causes, the resulting mortality rate of 1.25 per 1,000 total births being a new low record, the previous best rate being recorded in 1941.

In addition to the Bristol cases, 5 non-residents died in the city, making a total for the year of 15. All the deaths except one occurred in public institutions.

The number of expectant mothers evacuated to adjacent counties in 1944 was 65, no deaths occurring in these cases.

II. GENERAL PROVISION OF THE HEALTH SERVICES.

Laboratory Facilities (statistics pages 62-64).

The Preventive Medicine Department of the University of Bristol carry out the bacteriological, pathological and chemical examinations required by the Corporation at Canynge Hall and Southmead Hospital laboratories. As will be seen by examination of the statistics, there has been an increase of 16,207 in the number of specimens dealt with compared with the previous year.

A brief review by Dr. K. E. Cooper of the work done by the laboratories during the war years (1939—1945) is included, together with notes on the work of the clinical pathology section by Dr. Dorothy Woodman, on page 45.

During 1944 it was decided to provide a temporary laboratory at Ham Green Hospital by the adaptation of a small ward at a cost of £175, and plans were also prepared by the city architect for a permanent building to be erected after the war to accommodate bacteriological, pathological and bio-chemical laboratories. Owing to the shortage of labour the alterations were not completed by the end of the year.

In April a report on post-war pathological services was submitted by the University for the consideration of the Divisional Hospitals Council and this has been approved by the Health Committee. In this report is envisaged the organisation of the pathological services for Bristol and district in three main administrative units, all within the University, viz.: (1) the department of pathology, (2) the department of bacteriology, and (3) the department of preventive medicine. The first two departments will have, in the main, academic and research duties. The preventive medicine department will continue with expanding responsibilities to carry on its present work, i.e., pathological services for the hospitals in the care of the local authority, public health laboratory service, and the public analyst's section.

A brief report by the public analyst, Mr. F. E. Needs, on the work of his department during the year will be found on page 52.

Clinics (statistics pages 65-73).

Attendances at clinics have continued to increase during 1944, and one additional ante-natal centre (Mortimer House, Clifton) and two infant welfare sessions (Headley Park and Mortimer House) have been opened. Attendances at midwives' ante-natal sessions have decreased as more patients were confined in hospitals owing to the increased maternity hospital accommodation. The large increase in the attendances at infant welfare sessions, particularly young babies, creates an urgent demand for more infant welfare centres.

Hospitals.

General.

The great need for accommodation for chronic sick cases continued during 1944, but it was impossible to find further accommodation for these cases. It is hoped that the position will be alleviated to some extent by the Defence Regulation of 23rd November, 1944, whereby local authorities may make arrangements for the provision of domestic help where necessary and may itself employ women to provide such help. In many cases the services of a district nurse are all that is required where domestic assistance is also available, and the Council has recognised the value of this domiciliary nursing by granting financial assistance to the Bristol and District Nursing Association.

The shortage of domestic workers at the Health Committee's institutions continues to be a serious problem, and unless assistance can be obtained at Ham Green Hospital and Sanatorium we shall be forced to close down some of the wards. An urgent appeal has recently been made through the press, but very little response was made to the need for resident domestic help. While we are very grateful for the many offers of voluntary part-time assistance, this is mostly confined to evening work and does not alleviate to any great extent the problem of duties associated with daytime ward routine. Transport arrangements have been made for non-resident staff at Ham Green, and it is hoped that during 1945 there will be a greater response to this most urgent need.

In January attention was drawn to the large number of patients awaiting treatment for minor surgical conditions at voluntary hospitals and special arrangements were made for the reception of a number at one of the American hospitals in the neighbourhood, transport being provided by the Health Committee. This assistance by the American military authorities was greatly appreciated as it enabled a long waiting list to be reduced considerably.

Rehabilitation.

The Ministry of Health from time to time have stressed the importance of rehabilitation in regard to patients in hospitals and sanatoria, viz., the restoration of a patient to full working capacity in his former occupation, or his partial restoration to such working capacity as will render him suitable for certain selected occupations more suited to this reduced efficiency, and his placing in such occupation. It is hoped as soon as possible to establish a complete rehabilitation service for in-patients and out-patients in Bristol. In this service is envisaged not only the organisation of occupational therapy in the hospitals, but the establishment of a rehabilitation centre with workshops for training in the various types of industry found in Bristol and the surrounding districts and the formation of a rehabilitation consultative committee. The final stage of actually placing the re-educated or trained patient back into his job will involve the formation of a special joint committee, working in co-operation with employers of labour.

It is not possible at present to proceed beyond the establishment of a rehabilitation unit at Southmead Hospital. This unit comprises massage and physiotherapy, electrotherapy, remedial exercises, occupational therapy, woodwork and handicrafts. A limited number of out-patients referred by the Ministry of Labour will receive rehabilitation treatment at the hospital in addition to in-patients. An occupational therapy scheme has been in operation at the city hospitals and sanatoria for some years, but in view of the recent increased demand for this service these arrangements have been revised and three occupational therapists have been appointed to work at Ham Green, Snowdon Road and Southmead hospitals. Teaching classes in carpentry, boot repair work, dressmaking and handicrafts have been arranged at the sanatoria in co-operation with the Eduction Department.

The work of the almoner's department at Southmead, which is associated with the rehabilitation problem, has also been revised and many of her administrative and clerical duties have been placed under the direct supervision of the steward. This enables the almoner to devote herself entirely to her special duties of reporting on home conditions of patients, arranging convalescent treatment or transfer to other institutions, supplying surgical appliances where necessary, and generally assisting a patient to reorganise his whole plan of living.

Southmead Municipal Hospital (statistics page 74).

The medical superintendent, Dr. P. Phillips, reports that statistics show an all-round increase in the work of the hospital, 8,253 cases being admitted, compared with 7,358 in 1943. In August, as a result of the V-bomb assaults on Southern England, Southmead Hospital was called upon to receive a quota from hospital trains evacuating hospital cases from London. Seventy-eight sub-acute male and female patients were received on the 10th August, and 64 chronic cases of advanced types on the following day. They were gradually dispersed to other hospitals in the area, and by the end of the year only about six remained.

During 1944, several outstanding developments have taken place in the work of this hospital. The special pre-fabricated building erected for the accommodation of V.D. patients, mentioned in my report for 1943, was opened in April. This accommodation, however, proved insufficient owing to the increased incidence of the disease, particularly amongst women, and it was decided to utilise both sides of the block for women and children. Arrangements were made as a temporary measure to allocate a block of 24 beds at Snowdon Road Hospital for male patients, the cost of the necessary alterations being £455. All in-patient treatment was finally taken over from the Bristol Royal Infirmary on 1st July, 1944.

In September, 1944, Mortimer House Maternity Hospital and Health Centre was opened by Her Grace the Duchess of Beaufort. The maternity hospital accommodates 35—40 patients and the annexe has been fitted up temporarily as a small Health Centre, where ante-natal infant welfare and minor ailment treatment clinics are accommodated. There is also an office for the district health visitor and district sanitary inspector, and residence for two district midwives—all public health staff working in the district.

Mortimer House is administered as an annexe to Southmead Hospital under the direction of the medical superintendent, the matron and the steward of that hospital. The consulting staff are under the direction of the acting professor of obstetrics of the University, and there is an obstetric registrar in residence. The hospital has been recognised by the Central Midwives Board as Part II training school for midwives, and thus, in conjunction with the Bristol Maternity Hospital, it will be possible to train all pupil midwives in this area in their Part II training who have entered for their Part I training at Southmead Hospital.

In the autumn of 1944 the problem of sleeping accommodation for the nursing staff at Southmead became very acute owing to the greatly increased staffs. As it was impossible in wartime to extend the Nurses' Home, an attempt was made to billet out these nurses, but the scheme had to be abandoned owing to its unpopularity with the staff and the lack of suitable billets in the neighbourhood. The Health Committee decided the only alternative was to find other accommodation outside the hospital, and in November the Council approved of the acquisition on a three years' lease of premises at 11, Upper Belgrave Road, Clifton, for an auxiliary nurses' home to accommodate 22 nurses and two maids. The cost of alterations, decorations, furniture and equipment amounted to £1,000, and the annual estimated cost of running the hostel £800.

Premature Baby Unit.

The Minister of Health, in March, 1944, issued a circular drawing attention to the need for taking all possible steps for the preservation of infant life, particularly in the case of those prematurely born. The Health Committee had previously considered but now definitely decided to deal with the problem in stages, viz., (1) progressively with those born in the Health Committee's institutions; (2) later to provide special facilities for all premature babies in the city.

A report was approved by the Council in July, 1944, in which it was proposed to set up a premature baby unit at Southmead Hospital, including the appointment of specially trained staff, provision of special room with controlled heating and ventilation, oxygen container for the transport of premature babies both in the wards and the ambulances, and arrangements for the collection of human milk. Special records will be kept to ensure continuity of supervision between hospital staffs and the district health visitor when the baby returns home. Cubicalisation of the nurseries will be proceeded with in stages and will be carried out later. The estimated cost of the first stage of the scheme is £760.

By the end of the year work had commenced on the heating and ventilation arrangements and the appointment of a pædiatric sister had been made. Plans were also prepared for the transportable oxygen apparatus and it is hoped that the premature unit will be completed early in 1945. The working of the unit will be under the direction of the two part-time pædiatricians appointed by the Health Committee in 1943 to supervise the infant welfare in the maternity department and in the sick ward of the hospital.

Ham Green Hospital and Sanatorium.

The Medical Superintendent, Dr. B. A. I. Peters, has furnished the following report on the work of Ham Green Hospital and Sanatorium during 1944:—

"*Infectious diseases section.*

During the past year 2,089 cases were admitted, which showed a drop of 400 cases on the previous year's admissions—the principal drop occurred in cases notified as scarlet fever, diphtheria and measles.

Diphtheria.

Four hundred and three cases were notified as diphtheria, but of these only 277 were found to be suffering from that disease. This is one of the lowest figures ever recorded. Of these, two died, which is only 0.7%, a record low figure since the hospital was opened. Of the total, 34 (12%) were very severe cases who were in danger of death for 7—8 weeks after admission. This proportion of very severe cases is about the average for recent years, but it shows that the disease has lost none of its severity and any relaxation of pressure on prophylaxis would probably see a rapid rise again. The two fatal cases already noted were tracheotomy cases, of which there were five in all during the year.

Scarlet fever.

Six hundred and nine cases were notified, of which 496 were found to be suffering from that disease; one died, giving a mortality rate of 0.2%. The fatal case arose in a young man with very severe heart disease, from which he was likely to have died very soon apart from the scarlet fever.

Enteric fever.

Fifteen cases were notified as enteric fevers, of which only six were found to be suffering from that disease. All recovered.

Cerebro spinal fever.

Sixty-seven cases were notified as cerebro-spinal fever, but only 22 were really suffering from that disease. They all recovered. This is a striking example of the success of modern treatment, as in the outbreak during the last Great War more than half the cases died.

Whooping cough.

One hundred and eleven cases of whooping cough were admitted. These were all severe complicated cases, mostly in very young infants. Nine of these died. Whooping cough in very young infants is probably the most dangerous infectious disease present in this country at the moment, as they respond very badly to treatment. A method for the prevention of this disease is now available, and its adoption might help to prevent many of these fatalities.

Measles.

Seventy-two cases of measles were admitted, mostly with broncho-pneumonia, and they all recovered.

Erysipelas.

Seventy-one cases of erysipelas were admitted, and one died—an infant of six weeks old.

Puerperal fever.

Eighteen cases of puerperal fever were admitted, and one died from a thrombus lodging in the lung. This is the first death from this dangerous disease we have had in three years. This again is a striking improvement due to modern treatment.

Pneumonia.

We admitted 256 cases notified as pneumonia. Ninety-six were found to have broncho-pneumonia, and of these 13 died, giving a mortality rate of 13.0%. One hundred and twenty-eight cases were found to have lobar pneumonia, of these only four died, giving a mortality of just over 3%. This represents a tremendous saving of life, as this disease used to take a heavy toll of people in their prime.

Of all the fatal cases, eight were between 60 and 80, six were between 50 and 60. Only one case occurred in a young adult, and the other deaths were in young infants. In many of these cases the broncho-pneumonia was merely the termination of a period of prolonged ill health. The use of an oxygen tent is a life saving measure as it sustains the patient until the drugs have had time to take effect.

Dysentery.

One hundred and forty-five cases of mild *sonne* dysentery were admitted, all of which recovered.

Malaria.

Thirty-five cases of malaria were admitted, mostly service patients, and these all made a good recovery.

One hundred and seventy-nine cases were admitted for observation. These comprised a very great variety of medical and surgical conditions which would almost cover the whole realm of medicine.

During the latter part of the year a small amount of penicillin has been available for civil cases and was used in five cases of infections by organisms which are not responsive to the sulphonilamide drugs, and all recovered satisfactorily. The most interesting was a case of septic thrombosis of one of the great veins of the brain, the cavernous sinus, in a young woman who made a brilliant recovery, as this condition was hitherto almost universally fatal.

Tuberculosis.

Three hundred and twenty-one cases of tuberculosis were admitted. This is a drop of 40 on last year. Of these, 69 died. We still have to deplore the extremely high proportion of our cases who are admitted when the disease has advanced beyond any hope of recovery. A very large number of cases were treated by collapse therapy, but as regards the special chest surgery, unfortunately we have been able to have very little done during the last six months, as Mr. Belsey, thoracic surgeon, has been pretty well fully occupied with casualties from overseas.

We consider that these record low mortalities are very satisfactory seeing that civil hospitals are being carried on under ever increasing difficulties owing to shortage of staff of every kind."

Accommodation for the treatment of tuberculosis.

At the end of 1943 a report was submitted to the Health Committee on the problem of hospital beds for patients suffering from tuberculosis, and a special sub-committee was appointed to consider their future policy. The sub-committee favoured the principle of the concentration of the treatment of all types of tuberculosis in one institution and recommended the replacement of existing accommodation in Snowdon Road and Charterhouse Hospitals at the earliest opportunity. Plans had to be formulated to meet a possible increased demand for sanatorium treatment resulting from the extended diagnostic facilities afforded by the mass miniature radiography unit, and the city valuer and city architect were asked in March to examine the possibility of providing an additional 100 beds at Ham Green in temporary buildings. The restriction of new building works and shortage of materials and labour held up the scheme until the end of the year, when detailed plans were submitted to the Health Committee by the city architect.. These are still under consideration, but briefly the new scheme will provide the following:—

(a) Three additional T.B. blocks (total accommodation 140 beds).
(b) Extension of sanatorium recreation hall.
(c) Extension of sanatorium patients' dining hall.
(d) Additional roasting oven in central kitchen.
(e) Conversion of block I and J for 30 night nurses.
(f) New block for nursing and domestic staff dining and domestic staff recreation.
(g) Conversion of block G and H as administration.
(h) New hospital infectious block for 30 beds.
(i) New X-ray, laboratory and dispensary block.
(j) Extension to nurses' home and medical block.
(k) New waiting room and sanitary accommodation for visitors.
(l) Additional storage facilities.

Water supply.

Owing to wartime conditions the scheme for supplying the hospital with an improved water supply had to be abandoned. Difficulties have arisen, however, with regard to the water softening plant and as a temporary expedient approval was obtained in January for the provision of a further filtration and settling tank to the crude water supply at a total cost of £490.

Frenchay Park Sanatorium.

There has been a slight increase in admissions and discharges at Frenchay Park Sanatorium due to the great number of children admitted for investigation for short periods for bronchogram or nose and throat operations. Dr. E. E. Mawson, the resident medical officer, reports that while the numbers during the whole war period do not suggest that there is any increase in surgical tuberculosis among children in Bristol, there is a marked preponderance of tubercular hips in the cases admitted. There has been an increase in pulmonary tuberculosis of the adult type both in numbers and severity of disease in girls between 12 and 15 years.

A full time physiotherapist has now been appointed and a new departure has been made in the treatment of bronchial catarrh and bronchiectasis by breathing exercises.

During the year 943 X-rays were taken, including 61 bronchograms, 50 operations took place, exclusive of dental ones, 39 of them being nose and throat operations. Nineteen children were admitted from the city residential nurseries for the removal of tonsils.

Stapleton Institution.

Dr. S. Datta, medical officer, Stapleton Institution, reports as follows:—

"There has been no important change since the last report. The nursing shortage has continued to be serious, and it is regrettable that an institution with a high death rate and sickness rate should suffer this acute shortage.

There were only three cases of notifiable infection during 1944, one each of erysipelas, tuberculosis and bacillary dysentery."

Radiological Services.

The City Council in June appointed Dr. J. V. Sparks as consultant radiologist to organise and develop the X-ray services of the City and County of Bristol.

Following a short term report by Dr. Sparks upon existing facilities and immediate requirements, certain improvements have been effected, enabling the medical officers to have a report on all cases examined within 48 hours. Upon Dr. Sparks' recommendation the Health Committee agreed to provide rotary anode tubes for the X-ray apparatus at Southmead Hospital and Central Health Clinic to improve the taking of special X-ray photographs, particularly of expectant mothers, at a cost of £592 10s.

A report of long term recommendation is now under consideration. This includes the planning of a large new X-ray department at Central Health Clinic, structural alterations to the X-ray department at Southmead Hospital, and a complete new X-ray department at Ham Green Sanatorium.

As reported last year, the Council has acquired a mass miniature radiography unit and details of the work of this unit will be found under the heading of " tuberculosis," page 15.

Welfare of the Blind.

For a report by Mr. R. R. Garden, certifying ophthalmic surgeon, and the medical officer of health on " The Prevention and Cure of Blindness," see appendix, page 32. Following the adoption of this report by the Blind Persons Act Committee an annual prize of £15 is now presented for essays on ophthalmic diseases which are responsible for blindness. The subject for 1945 was " The Methods of Prevention of Blindness due to Chronic Glaucoma," and the prize was awarded to Mr. J. R. Hawkings, final year medical student.

The Blind Persons Act Committee in April, 1944, approved of the appointment of a welfare officer for the prevention of blindness and a health visitor was seconded for this work on 13th November. She will work under the supervision of the consultant ophthalmologist and her duties include all aspects of welfare work with regard to blind persons and those threatened with blindness.

Meals for Elderly People.

In conjunction with the Old People's Welfare Committee, Bristol Council of Social Service and the Communal Feeding Committee, a scheme was formulated in February for the provision of a mid-day meal for elderly people who have difficulty in shopping or are unable to prepare their own meals. The Health Committee arrange transport and helpers are provided by the W.V.S. and the Bristol Council of Social Service. The scheme is limited to persons recommended by district nurses, health visitors, and to persons specially recommended by the Old People's Welfare Committee and the meals are supplied from the British Restaurants at a cost of 1/-, including sweet. An average of 72 dinners were provided twice weekly during the first six months, but there has been a falling off in the demand for this service, which investigations suggest is due to the inability of a number of old persons to pay for the regular supply of meals. Representations have been made for a reduction in price, but so far it has not been possible to effect this.

Health Education.

Every opportunity is taken by the department to further public education in matters of health and hygiene, and the results of the diphtheria immunisation publicity campaign, in particular, have been most encouraging (see page 16). Full use has been made of literature and posters supplied by the Central Council for Health Education and the Ministry of Food, and in this connection it should be mentioned that a leaflet and poster for food handlers, written by one of the sanitary inspectors, has been adopted by the Central Council, who have been granted permission to use it for national distribution. Lectures have been given to expectant mothers on child care, including a series of cookery demonstrations at three clinics, and to youth clubs and members of the general public on hygiene, venereal disease and tuberculosis. Assistance was given to a pre-nursing class organised by a secondary school in the city, where sanitary inspectors gave lectures on the public health aspects of milk production and treatment, house construction, ventilation, insect pest control, and refuse disposal. It is interesting to note that this class was one of the first of its kind in the country and has an extremely successful record of examination passes to its credit.

In collaboration with the Ministry of Information and the Central Council for Health Education, film shows were arranged during 1944 at one of the principal cinemas, public halls and schools. The subjects were very varied, including films on rat destruction, scabies, venereal disease, lice, sex and human reproduction, catering and the preparation of food, and tuberculosis and mass miniature radiography. Film shows have also been arranged for doctors and allied personnel from the Bristol and Bath areas and from the U.S. Forces, which have been very well attended.

Any remarks in connection with health education work would be incomplete without reference to the invaluable help the department has received from the local press, which has done much to keep the public interest stimulated and informed on health matters.

Casualty Services.

During 1944 the full time civil defence personnel continued to give excellent service in connection with public health and other duties, and with the part-time personnel assisted in distributing meals to the aged and infirm. Assistance was given to the military authorities in the conveyance of wounded to hospitals, and mention must here be made of the fine public spirit displayed by the part-time drivers and attendants in reporting for duty with unfailing regularity, despite the uncertain hours and long periods of waiting often involved.

Authority was given at the end of the year for the publication of certain information regarding air raids on the city, including the following statistics with regard to air raid casualties: —

The total number of civilian casualties was 4,604, made up of 1,299 killed, 1,303 seriously injured, and 2,002 slightly injured. 697 persons were rescued alive after incidents, and 833 bodies recovered from debris, etc.; 105,570 war damage incidents have occurred, affecting all classes of properties; 89,080 properties were destroyed or damaged by enemy action, including 81,430 dwelling houses (or combined shops and dwelling houses), of which number 3,092 houses were either totally destroyed or so badly damaged that demolition was necessary. The known casualties to personnel of the civil defence services and fire guard service were 48 killed and 82 seriously injured.

The Council have placed on record their sincere appreciation of the loyal and gallant service rendered by members of the civil defence organisation in combating enemy air attacks on the city, and I would like to take this opportunity of expressing my own deep admiration and gratitude to all members of the casualty services for their unfailing loyalty and co-operation.

III. MATERNITY AND CHILD WELFARE.

Dr. M. G. Hughes, chief assistant for maternity and child welfare, has furnished the following report on the effect of wartime conditions on the health of mothers and babies in Bristol: —

" The importance of the health of the mother and infant has been realised throughout the war years, and while some of the vitamin preparations provided by the Government were not taken up to the extent that had been expected, generally speaking there is no doubt that the extra supplies of essential foods and vitamins for this section of the population has produced good results.

Medical officers working in the maternity and child welfare department report that the physical condition of the mothers, apart from some anæmia, has been good. Several factors have contributed to this—in addition to the extra vitamins already mentioned and the increased administration of iron, an improved diet has resulted from food rationing and food advice propaganda, combined with a higher income level and less economic hardship. It is also felt that the years of educational and preventive maternity and child welfare work are now bearing fruit and that the improved condition of mothers and infants would have occurred in any case. It is fortunate that these results should have been due at this particular time. There has been, however, some increase in nervous manifestations such as emotionalism, insomnia and depression, especially where the husband has been away from home. Another adverse effect of war conditions is a further decrease in breast feeding, probably due to domestic difficulties and an anxiety on the part of the mother to return to work as soon as possible. It has been noticed that weaning has tended to occur at an earlier age. In spite of this the physical condition of the majority of children has been maintained.

There has been an increase in the number of children whose physical and psychological condition has been so unsatisfactory that it has entailed admission to the residential nurseries, frequently through the juvenile court under the Children and Young Persons Act, 1933, and one of the main causes is considered to be the neglect of the home as a result of the mother's going to work; another factor may be the less regular visiting of the homes by health visiting staff resulting from shortage of trained staff. Although the Council has approved the appointment of 20 additional health visitors it has only been possible to appoint seven of these, and owing to resignations the health visiting staff are still considerably under the approved establishment.

Midwifery Service.

The Central Midwives Board in July approved of the inclusion of Mortimer House in the Part II training scheme for pupil midwives in Bristol, being allowed to take up to 24 pupils per annum. Seventy-two pupils are trained at the Bristol Maternity Hospital. In order to train the required number of pupils and also make available to medical students the required number of confinements on the district it is necessary to co-operate with adjoining authorities and an arrangement has now been made with Gloucestershire County Council for 12 pupils to be trained in the Gloucestershire area each year (six to be nominees of the Gloucestershire County Council and six of the Bristol Corporation). The scheme will commence in June, 1945, and these pupils will be supervised by the sister tutor supervisor for the Part II pupils at Mortimer House and the Bristol Maternity Hospital.

An interesting development in the work of the domiciliary municipal midwives has been the introduction of gas and air analgesia for district work; eighteen of the staff took the course in Bristol which qualifies them to administer this analgesia, others have taken the course elsewhere before appointment to our staff, so that there are now twenty-one midwives qualified in this branch of the work. There are four Minetts apparatus in use at the present time and because of the limited number one apparatus has to be used by several midwives; it is too heavy to be conveyed except by car and it is therefore difficult to arrange transport.

The problem of accommodation for midwives and pupil midwives has become more difficult in recent months owing to the acute housing shortage and lack of suitable lodgings, and the only solution would appear to be the provision of hostels for pupil midwives. This matter is now under consideration.

A post certificate course for midwives was held at the Central Health Clinic consisting of eight lectures and a visit to the department of preventive medicine. The course was well attended and it is hoped to arrange a more comprehensive one in 1945.

Health Visitors.

During the war the health visitor's work in the home has increased in amount and in scope. Maternity and child welfare work and that of the school medical department is now combined, and this enables the health visitor to deal with the family as a unit to a greater extent than formerly, and is bound to give better results when she has more time to devote to this work. The difficult cases, of course, involve co-operation with other departments and agencies, including the juvenile court.

Housing problems are greater than ever, and necessitate special visits and reports, and the limited accommodation in nursery schools and classes and wartime nurseries has meant additional home visits in order that recommendations for admissions may be made. The daily guardian scheme which was instituted as a war measure has also increased the health visitor's work as the home is visited before a child is accepted and visits are paid subsequently.

Attendances at clinics and clinic sessions have increased and more health visitors are working in voluntary infant welfare centres.

The difficulty in obtaining sufficient staff to carry on this work has already been mentioned and it is hoped that the situation will improve in 1945. The recommendations of the Rushcliffe Report on Nurses' Salaries, Part II, relating to public health nurses, domiciliary or district nurses and state registered nurses in nurseries were adopted by the Council in April.

Home Helps.

During the year there were two panels of municipal home helps in connection with maternity and child welfare, viz., (a) provision for mothers who are being confined in their own homes, and (b) facilities in case of grave emergency when the mother is pregnant or has a child under five years of age, and where all efforts to arrange for the services of a neighbour or relative have failed. The home helps go daily to their cases and applications for such assistance are investigated by the health visitor for the district. The family does not pay any wages direct, applicants being assessed according to their ability to pay. During 1944, 201 application for assistance were dealt with.

Adoption of Children (Regulations) Act, 1939.

Arrangements for adoption are now carried out by the maternity and child welfare department. The extreme importance of this work from the point of view of the child and the adopters is realised and every care is taken to obtain satisfactory results.

Foster Mothers.

The number of children placed with foster mothers has decreased since the war, but some of the existing cases have needed particularly careful supervision; five cases were taken to court and four of them resulted in a prosecution.

Care of Illegitimate Children.

The Ministry of Health, in October, 1943, issued a circular requiring maternity and child welfare authorities to review the arrangements for the care of illegitimate children. For some years a special department of the Social Welfare Committee, jointly with the Health Committee, had been dealing with this problem, but in view of the Ministry's recommendations it was decided to transfer the responsibilities of the officers concerned in the work to the Central Health Clinic, directly under hte supervision of the chief assistant medical officer for maternity and child welfare.

The staff wholly employed in this work now consists of a welfare officer, three full time assistant welfare officers and visitors, and five clerks (one part time). In addition, there is one full time health visitor specially appointed under the Infant Life Protection Act. Close co-operation is maintained with the welfare workers appointed in connection with the Council's venereal disease scheme. Briefly the work undertaken is as follows:—

(a) Unmarried mothers: interviews during pregnancy, arrangements for confinement, and interviews with putative fathers.

(b) Agreements in many cases are made direct between the man and the woman and also considerable assistance is given in the obtaining of affiliation orders. When an affiliation order is made, payments are collected for a period in almost every case to avoid the necessity of girls going to Court for this purpose. In many cases as the mothers resume work it is difficult for them to do so.

(c) Attendances are arranged at ante-natal clinics and health centres.

(d) The Social Welfare Committee have a mother and baby home where unmarried mothers can reside for a period. The medical supervision is carried out by the maternity and child welfare medical officers. In addition, the Health Committee maintain three residential nurseries for accommodating children under five years, including illegitimate children.

(e) Close co-operation is maintained with the voluntary societies in Bristol, *e.g.*, Bristol Women's Aid Association and the Diocesan Association for Moral Welfare.

(f) Considerably more attention is now being directed to after-care work and assistance in connection with obtaining employment.

In general, therefore, it can be said that the suggestions for the care of illegitimate children mentioned in the Ministry's circular are all covered, and with the transfer of the staff to the Central Health Clinic as an integral part of the maternity and child welfare service, closer follow-up will be maintained by the health visitors. One result of this co-operation is the fact that 68% of the children were able to go home with their mothers during the year ended 30th June, 1944.

Nursery Accommodation (statistics page 74).

Residential nurseries.

There is still a great demand for residential nursery accommodation due to the increase in court cases, in the illegitimate birth rate (with a decrease in the number of foster mothers) and in the number of mothers going into hospital for confinement or for illness. Owing to the demand for woman power in industry relatives or neighbours have not been available to assist to the same extent as in peace time. The problem is aggravated by the fact that owing to social conditions many children have remained in the short-stay nurseries for a period exceeding the previous years' average of six weeks.

Following the transfer of maternity cases to Mortimer House Annexe in September, Cedar Hall was converted into a residential nursery and was opened for this purpose in December, making the third residential nursery at Frenchay. All the nurseries have been constantly full and extra beds were in use at the Babies' Home, Downend. A nursery school under the direct supervision of the Education Department was commenced at the Babies' Home in September and a nursery school helper also attends daily at Frenchay House to supervise the nursery training of children in the 2½—5 age groups. The health of the children during the year has been very good.

Plans were made during 1943 for the extension of residential accommodation by the erection of temporary day rooms in the grounds of existing nurseries, and this has been done in the case of Downend and Frenchay House nurseries, but owing to various insuperable difficulties the scheme had to be abandoned in the case of Cedar Hall and Frenchay Lodge. As an alternative it was decided to erect a new nursery unit in the grounds of Frenchay Park Sanatorium to accommodate twenty children under two. Detailed plans have been prepared, but the approval of the Ministry of Health has not yet been received. The Government's decision to close down the evacuation nurseries has forced the Health Committee to consider the immediate provision of additional accommodation. Four nurseries were closed during 1944, and while a number of children were able to return to their homes, a proportion, because of unsatisfactory home conditions, still require nursery provision. In addition there is a waiting list of orphans, illegitimate children and those who have been deserted or neglected. To meet this need Nore House, Portishead, has recently been acquired at a cost of £4,250, plus £1,000 for furniture and fittings, and it is hoped that this will be ready for the admission of children in June, 1945.

In connection with the return of these evacuated children, reports from medical officers indicate that although their physical condition has improved, the psychological results in many cases have not been good, and there has been difficulty in getting a satisfactory readjustment to home life again. The arrangements for the return of these children to their homes entailed considerable visiting; in many cases home conditions had changed entirely and parents had moved—seventeen visits had to be paid in order to trace one family.

Wartime Day Nurseries (statistics page 74).

The opening of twenty-one wartime day nurseries was carried out successfully in spite of considerable administrative and other difficulties. The health of the children in these nurseries has been satisfactory on the whole, apart from some catarrhal infection amongst the youngest children. Where the mothers are working long hours the children attending the day nurseries have shown signs of neglect, and this is undoubtedly due to the fact that the mother is too tired to deal with shopping under war conditions and the care of a home in addition to a full day's work. There is evidence also that small children suffer as a result of being taken out early in the morning and late in the evening, especially in the winter and in bad weather.

Evacuation Scheme—Expectant Mothers.

Bristol ceased to be an evacuation area in October, 1944, but by a special arrangement with the Ministry of Health and the Somerset authorities the evacuation of expectant mothers was continued as a temporary measure in order to ease the pressure on maternity accommodation within the city. This arrangement has now ceased. The total number of expectant mothers evacuated from the introduction of the scheme in May, 1941, to February, 1945, was 767.

Educational Work.

The training carried out by the department has increased so much that it has necessitated the appointment of a full time sister tutor and an assistant in addition to the midwifery sister tutor, whose time is taken up entirely with the district training of pupil midwives. The number of pupil health visitors has increased each year, as has the number of clinic assistants and nursery trainees. The latter include residential and non-residential trainees who are working either for the diploma given by the National Society of Children's Nurseries or who are taking the pre-nursing course preparatory to entering hospital for general training. In connection with the nursery nurses' training college at the Babies' Home, Downend, the Health Committee have approved in principle of the establishment of a preliminary training school to enable additional probationers to be admitted. The establishment of a domestic science block has also been approved at a cost of £725, and it is hoped to appoint a domestic science teacher by arrangement with the education department.

There have been increased requests from societies, guilds and clubs for lectures on the work of the department, and many visits to the Central Health Clinic have been arranged. In addition to this, during the last nine months nineteen parties of service men and women have visited the Central Health Clinic and other sections of the work as part of a course in citizenship arranged by the War Office in conjunction with the Bristol University.

SANITATION, HOUSING, INSPECTION OF FOOD (statistics pages 75-79).

This subject is dealt with by Mr. F. J. Redstone, chief sanitary inspector, in the appendix, page 36.

IV. PREVALENCE AND CONTROL OF INFECTIOUS AND OTHER DISEASES.

Diphtheria.

The new low records of incidence and of deaths from this disease are of sufficient significance to warrant special discussion, and this is given in the review of the work of diphtheria immunisation given on page 16.

The number of cases notified, 161, compared with 378 for 1943. There were two deaths compared with six in 1943.

Scarlet Fever.

The number of cases has declined after two years in which increases had occurred, although these increases did not affect the general downward tendency which has been apparent over the past twenty years.

Cerebro-spinal Meningitis.

Although still above pre-war level, the number of cases (17) and the number of deaths (2) are the fewest of the war years, comparative figures for 1943 being 27 cases and eight deaths.

Measles.

Measles was almost absent from the city for the first three-quarters of the year, but the number of notifications during the last quarter (739) indicated the commencement of an epidemic, although less severe than in most parts of the country.

Whooping Cough.

The whooping cough incidence rate in Bristol during 1943 was only about one-third of that of the whole country. The Registrar-General's weekly return of provisional figures shows that incidence has declined over the whole country for 1944 as compared with 1943, whereas in Bristol a substantial increase has been experienced during the past year. It would seem that the local epidemic has lagged behind, but even so the case rate in Bristol for 1944 is again less than that for England and Wales.

Tuberculosis.

This year, for the first time since the beginning of the war, the number of notifications of pulmonary tuberculosis shows a reduction, 544 cases against 598 for 1943. Deaths numbered 223 against 231 for 1943.

In considering these figures, it should be noted, but not over-emphasised, that the operation of the mass radiography unit since July, has undoubtedly led to the discovery of some cases, the notification of which would otherwise have been postponed.

Notifications of tuberculosis of all other types remains at about the same level as last year. There is, however, a decided fall in the number of deaths, and after the Registrar-General's adjustment for inward and outward transfers, a low record is obtained for the mortality rate from this disease.

Respiratory Diseases other than Tuberculosis.

The carry-over from last year's influenza epidemic resulted in 17 deaths from this cause in the first quarter of the year. There was no epidemic recurrence during the remainder of the year.

The number of deaths from pulmonary infections (excluding tuberculosis) in 1944 was 507 compared with 723 in 1943.

Cancer.

The number of deaths from cancer registered in 1944 was 750 compared with 742 in 1943.

Heart Disease.

There has been an increase in the number of deaths attributed to this cause, 1,305 for 1944 compared with 1,168 for the previous year.

Tuberculosis (statistics page 71).

Dr. C. J. Campbell Faill, senior chest physician, has reported that during 1944 the staff of the section has been occupied to its full capacity. The two most notable points were (1) the greatly increased demand for hospital and sanatorium beds, and (2) the steady increase in the number of cases of artificial pneumothorax (and pneumoperitoneum) being discharged from sanatoria which required refilling at the Clinic.

In 1938 it was estimated that as a result of the war 40 more institutional beds would be required. This turns out to be a fairly accurate estimate of the number of beds required for new cases, more particularly cases invalided from the services and the acute young adult cases whose numbers still tend to increase. What was not anticipated was that there would be a greatly increased demand for beds for chronic moderately advanced cases which normally are largely nursed at home. Home nursing of these cases now appears to be quite impossible, as so far as can be seen every able-bodied female is either in the services or in a factory, leaving no one to do any home nursing. Another strain on our hospital beds is due to the fact that Bristol is a port and has to receive at any time of night or day tuberculous persons landed from hospital ships. Royal Navy, Army and Royal Air Force personnel are as a rule provided for by their respective services, but the city has to receive and treat Merchant Navy officers and men and repatriated civilians. These patients frequently are too ill to travel further to their homes or to hospitals near their homes, and consequently have to be kept until they are fit to undertake the journey or until death. The latter, happily, is very rare. All these circumstances make calls on our beds which could hardly have been legislated for in advance.

The number of cases of artificial pneumothorax discharged from sanatoria increases slowly and steadily. As these patients have to be refilled for, in most cases, two years and sometimes considerably longer, it will be seen that the effect is rather that of a snowball. At present there are five clinics per week devoted wholly to this, and they will have to be increased.

The services of Mr. R. H. R. Belsey and the facilities for thoracoplasty and adhesion section provided at Kewstoke Emergency Hospital have been a great boon and have been of the utmost benefit to a certain number of selected suitable cases. It is hoped that this service will be extended and made permanent.

The requirements of the Ministry of Health for all persons invalided from the services and those of the Ministry of Pensions for all pensioners make an increasing demand on medical, nursing and clerical staffs of the department.

Thoracic Unit.

The following notes on the surgical thoracic unit at Kewstoke Hospital have been contributed by Mr. R. Belsey, M.S., F.R.C.S., consulting thoracic surgeon, South-West Region.

" An E.M.S. surgical thoracic unit was established at Kewstoke in the spring of 1942 to deal with Service and air raid casualties. When beds were available, civilian patients were also to be admitted, and the rapid growth of the services extended to the civilian population is the subject of this report.

The unit started with 30 beds to cover a region with a population of three million persons; now, with 120 beds at its disposal, the unit is still grossly inadequate to deal with the civilian problem, and 400 or 500 beds could be filled over-night with patients urgently needing investigation and treatment. Twelve hundred patients have been admitted to the unit, about two thousand more treated in other hospitals and as out-patients.

The demands for its services increase with the growing realisation amongst general practitioners of the scope of the unit as a diagnostic centre for the 'problem chest,' as well as a therapeutic centre. With the inception of mass miniature radiography in the region the diagnostic work of the unit has multiplied. The closest co-operation has been established with the radiography unit, as with the general hospitals of the region, but much yet remains to be done in bringing the unit into closer contact with the general practitioner. A mobile team is available to deal with patients too ill to be moved to the unit, or, if necessary, to see patients in their homes in consultation with the practitioner.

Surgery is playing an increasingly important part in the treatment of pulmonary tuberculosis, but as yet the service is patchy and only a small percentage of those requiring treatment find their way to the unit. The position will improve when more staff and accommodation are available, and when contact has been established with all the sanatoria in the region.

The unit of the future will require a larger staff than is available at present. Owing to the complexity of modern technique in chest surgery, and the highly specialised equipment and staff that are necessary, the work can only be performed by a team of specialists and not by individuals working single-handed. For this reason a unit adequate to the present and future demands on its services will have to continue to work on a regional basis as at present."

During the year, Mr. Belsey has again undertaken work for the Health Committee and at an out-patient session at the Central Health Clinic on Wednesday afternoons there have been 1,014 attendances of patients referred by the tuberculosis officers, general practitioners, x-ray and mass x-ray departments.

The surgeon visits the sanatoria of the Bristol Health Committee and consults with the medical officers, when requested, on the suitability of cases for thoracic surgery, and arranges the admission of these cases to Kewstoke Emergency Hospital for the necessary operations or investigations. These consisted of eight thoracoplasty, two adhesion sections and four investigations during the year; 61 bronchograms were undertaken for children at Frenchay Park Sanatorium.

These figures are well below the average for the previous years, owing to the fact that following "D" Day, all airborne chest casualties were treated at Kewstoke and very little treatment of civilian cases could be undertaken. As the result of the influx of casualties and sick at Kewstoke, the civilian work has been grossly curtailed and is still held up by the shortage of staff. There has accumulated a long waiting list of patients requiring surgical treatment.

A number of chest operations have been performed at Southmead Hospital, Ham Green and Winsley Sanatoria, during this period.

Financial Assistance (statistics page 71).

The government scheme for the payment of allowances to persons suffering from tuberculosis is now fully established, as will be seen by examination of the relevant statistics. Payments are made weekly at five district pay offices spread over the city so that patients do not have to travel far to collect the allowances. Payments are also made at the various sanatoria and hospitals under the control of the local authority.

The scheme is having a useful effect in promoting early treatment and many expressions of appreciation have been received from patients and dependants. In some cases, however, the patient has found difficulty in managing on the allowance, particularly where there are dependent children and the sole income of the family is the allowance and National Health Insurance benefit. The Voluntary Care Committee has dealt sympathetically with applications for bedding, clothing and footwear for patients and their dependants and has also made small cash allowances for various reasons. During the year grants have been made to 68 patients (or dependants) who were in receipt of allowances under the scheme.

It is regretted that the scheme does not cover the non-pulmonary case and that it is limited to those patients where there is a reasonable prospect of return to work.

An arrangement with the Social Welfare Committee, whereby patients no longer regarded as being eligible continue to be paid by the tuberculosis welfare officer on the social welfare scale works very well, and obviates the necessity of the patient making a personal application to the Social Welfare Committee.

The department works in close co-operation with the rehabilitation officers of the Ministry of Labour in advising as to the nature of employment to be undertaken by patients after treatment. No special committee has yet been appointed in Bristol.

Mass Miniature Radiography.

On the 6th January, 1944, the City Council approved the Health Committee's proposal to purchase a mass miniature radiography unit at a cost of £2,000. They also approved of the appointment of a medical director, radiographer, dark room assistant, organising secretary and two clerks—all to form a team for the operation of the scheme. Under arrangements made by the Ministry of Health, the team were sent to London in June, where they received a month's training in the specialised work which they were to undertake. The unit had a preliminary session in July by examining pupils who were then leaving school, and after final adjustments in the lay-out of the accommodation at the Central Health Clinic, the unit was formally opened on 15th September by the Rt. Hon. The Lord Mayor of Bristol.

This radiographic apparatus enables radiographic photographs to be taken on miniature films. The examination of the miniature films under magnification will disclose to an expert whether there is any departure from the normal, even if there are no symptoms apparent on clinical examination, and arrangements are then made for any more detailed examination that is considered necessary as a result of the expert's study of the photograph. The purpose is to sift out from a number of apparently normal people those whose condition, in fact, requires further attention in order to restore them to good health. The vast majority of those examined by mass radiography receive the satisfying assurance that their lung picture is satisfactory and a check up at intervals will enable them to be sure that all continues to be well; and it is anticipated that with the return of peace time conditions facilities for annual re-examination will be available. A very small minority in whom some abnormality may be found are given the opportunity to seek advice and treatment at a stage favourable to early recovery. The whole procedure is completely confidential; information regarding any abnormality discovered is privately communicated to the persons concerned only, and it is for them to decide whether they take any further advice.

Mass miniature radiography, therefore, is a scheme for safeguarding health, as it enables abnormal conditions to be detected at a much earlier stage and with more certainty that was formerly possible. It is especially useful in examination of the chest, since tuberculosis of the lung, if diagnosed in the early stages when it is symptomless, is much easier to treat and can usually be cured completely.

By the end of 1944, 12,268 persons had been examined by this apparatus, including two batches of school leavers, Bristol Corporation employees, civil servants, inmates and staffs of Hortham Colony, Bristol Mental Hospital, B.B.C. and children attending South Bristol Open Air School. Of this total, 516 persons were recalled for large films to be taken and 176 attended for clinical examination. One hundred and twenty-five of the patients clinically examined were diagnosed as cases of tuberculosis and referred for treatment.

It has now been decided to extend the availability of the service to evening sessions; in the first instance three evening sessions will be held each week and it is hoped that this will enable people who cannot attend during the day to take advantage of the scheme.

At present the apparatus, although transportable, is not mobile; the Health Committee are considering the acquisition of a van and other equipment so as to make it readily mobile and are working out with the local authorities concerned a scheme for the operation of the unit outside the city area.

Diphtheria Immunisation.

I am indebted to Mr. L. R. Rogers for the following report:—

Marked progress was made during 1944 in the campaign against diphtheria. The total of 161 civilian cases notified in 1944 represented practically half the lowest figure previously recorded since the beginning of this century; in fact, not since the early 1890's when diphtheria first became notifiable and when the population of the city was only just over half its present normal enumeration, has such a low figure of incidence been recorded. The number of deaths from diphtheria in 1944 (viz., two) is the lowest ever recorded.

Year	No. of cases per annum	No. of deaths per annum.
1921—5 (average) ...	1031	73
1926—30 „ ...	916	39
1931—35 „ ...	675	21
1936—40 „ ...	561	17
1941	529	20
1942	370	7
1943	378	5
1944	161	2

In Bristol the policy is to recommend the immunisation of every child as soon as possible after the age of nine months by giving a course of two injections and then a single booster injection or repeat course at the age of four years and nine months, i.e., just before the child commences school (or later at school, where the child has had a full course of injections more than two years previously). A further booster injection might be given after a lapse of another four years.

Publicity for the scheme has been achieved through the press and cinema, the display and distribution of posters and leaflets, contacts with various voluntary organisations, chemists and the churches, all of whom have kindly lent themselves to the formation of a body of informed opinion in support of the campaign. The Health Committee are grateful to them for their help. By a birthday card scheme mothers of babies approaching their first birthday are reminded of the facilities available for immunisation and a follow up index maintained centrally enables a similar reminder to be sent to the parents of children who, having been immunised for more than two years, have become due for the booster injection.

In the final instance it is, of course, the personal contact by doctor, health visitor or school teacher which is most instrumental in persuading parents to take the necessary action. A record is maintained so that health visitors can see what success has been achieved in their respective districts.

Free immunisation is available under the Health Committee's scheme at clinics, schools, nurseries, and from general practitioners who have joined the scheme and who receive their fees from the local authority; the immunising material is provided free of charge.

During 1944, 4,526 children under five years of age and 2,270 between five and fifteen received an initial full course of injections, and 4,651 children received a booster dose. The total is rather less than last year. Two factors are responsible. Firstly, arrears overtaken in previous years have now left those cases where the parents are more difficult to persuade or are quite intractable in their wish not to have their children immunised; secondly, the publicity programme was hampered by uncertainties arising out of the war situation and with the expectation of heavy calls on medical and nursing staffs.

For the first time the number immunised under five years of age exceeded the number of school children immunised during the year, which is a tendency in the right direction, since the younger the child the greater is the danger to the child if attacked, whilst the earlier the immunisation, the longer is the ensuing period over which protection is afforded and the age groups (4 to 8 years) which are most susceptible to attack are covered.

Since the commencement of the intensive campaign in 1940 a total of 40,317 children have had the full course and 8,074 have had the single booster injection. This work was divided as follows amongst the following sections: 34,491 schools, 12,320 clinics and nurseries, 1,580 general practitioners in the scheme, and it is estimated that 60% of the child population is now immunised. There is no information as to the number of children who may have been immunised privately by their own doctors.

It is recognised that Schick testing is the scientific conclusion to the course of injections, but owing to shortage of medical staff it has not been possible to do this except in a limited number of cases, e.g., in the case of older children applying for the booster injection where it has been considered desirable to ascertain the state of the child's immunity before giving the further injection.

Whilst the immunisation campaign has been proceeding thus, the organisation for dealing with swabs has been improved and a dispatch rider service now ensures that the laboratory services are brought into play at the earliest possible moment and are accorded the same degree of urgency as the ambulance service for the removal of the patient to hospital. All the factors, including improved methods of treatment at the isolation hospital as well as immunisation, by providing a fully co-ordinated preventive and curative service, have led in the year 1944 to the lowest number of deaths ever recorded, and having arrested the upward trend in the average number of cases notified at the beginning of the war, have now turned the incidence curve sharply downwards. This downward movement has taken place in a year when, according to experience of past cycles, a sharp rise in the number of cases might have been expected.

Treatment of Venereal Diseases (statistics pages 71-73).

Dr. A. E. W. MacLachlan, the director of the section, reports:—

During the year 1944, further reorganisation of the V.D. treatment scheme has continued, namely the change-over from part-time to whole-time medical staff, the increasing application of intensive in-patient treatment of recent infections, and the wider utilisation of the services of the welfare workers in the tracing of contacts to infection and in the prevention of default before completion of treatment.

Two whole-time medical officers have been appointed—a medical director of the venereal diseases service and an assistant medical officer—in charge of the out-patient sessions at the Maudlin Street and Southmead clinics and the associated in-patient accommodation. The clinic at Avonmouth docks continues to be staffed by the port medical officers, a close liaison being maintained by the frequent interchange of visits and opportunities for consultation.

A revised system of statistical recording has been introduced for the various clinics, consisting basically of a loose leaf system of day-sheets, with transfer of the totals to record books showing the monthly, quarterly, and annual figures. This system has proved satisfactory and has greatly simplified the preparation of the periodical returns required by the Ministry of Health and the various local authorities. The medical case-record sheets have been re-designed to permit the rapid assessment of the clinical condition, treatment administered, and progress in the individual case and to include a summary of any relevant social factors. Co-operation with the Department of Preventive Medicine has been facilitated by the provision of new pathological report forms drawn up in conjunction with Dr. Cooper.

The importance of the social aspects of disease has by now become widely appreciated, and in no department of medicine is it as great as in the field of venereal disease. The provision, in 1943, of male and female welfare workers has proved of the greatest value. The rapid and confidential location of suspected sources of, or of others exposed to, infection has limited the possibilities of spread of disease by bringing in for clinic investigation a large number of patients. Default before completion of treatment has been greatly reduced by a careful check on the patients' visits to the clinics and by letter follow-up or personal call when irregularities occur. In a number of cases there are valid reasons for non-attendance; in many instances, however, the irregularity is the expression of the irresponsibility of the individual. In the former cases, the welfare officers have frequently been able to smooth out the difficulties of the patient, and in the latter to ensure sufficient treatment to render the patient at least non-contagious.

The continuing increase in incidence of the venereal diseases during the war period and the necessity for conservation of manpower led to the adoption of intensive short-term schemes of treatment, especially in the treatment of early syphilis, and in sulphonamide-refractory cases of gonorrhœa. The availability of the later and less toxic arsenical drugs and the release of penicillin have made intensive treatment almost universally practicable. It is to be anticipated that, in the future control of venereal diseases, the various forms of intensive therapy will play an increasingly important role.

In co-operation with the Maternity and Child Welfare services a special diagnostic clinic has been established for the detection of venereal disease during pregnancy.

The Cancer Act, 1939.

The Council's scheme of interim arrangements under the Cancer Act, 1939, has now been approved in a modified form by the Ministry of Health and is as follows: —

" Arrangements made by the Council of the City and County of Bristol (hereinafter called ' the Council ') to secure that the facilities for the treatment of persons suffering from cancer are adequate for the needs of the city.

1. The Council will provide all necessary facilities so that every person in the city who is or is suspected to be suffering from cancer may obtain advice and that every such person who is found to be so suffering may obtain adequate treatment. In particular the Council will provide the facilities set out in the following paragraphs.
2. The Council will provide by agreement with the governing body of Bristol Royal Hospital and at the Southmead Hospital of the Council, hospital treatment and where necessary in-patient accommodation for all persons in the city who are suffering from cancer.
3. The Council will provide facilities for consultation, including both diagnosis and medical observation after treatment as follows: —
    (a) By agreement with the governing body of the Bristol Royal Hospital, consultative clinics at the Bristol Royal Hospital.
    They will arrange for the attendance of consultants at the consultative clinics at such times as may be necessary.
    These facilities will be available for persons who are suffering or suspected to be suffering from cancer.
4. The Council will by agreement with the University of Bristol, arrange for the examination of pathological specimens in all cases where such examination is considered necessary for purposes of diagnosis or treatment.
5. In addition to the general arrangements set out above the Council may provide for the diagnosis and treatment of any individual case at such hospital or other institution as the Minister may approve.
6. The Council will in such cases as they consider necessary pay all or any of the travelling expenses (including the travelling expenses of a companion) reasonably incurred by persons for the purpose of availing themselves of the services provided under these arrangements.
7. The Council will arrange for records to kept in such form as the Minister of Health may from time to time approve of treatment provided under these arrangements and its results, and will send such records or copies thereof to any person for the time being designated by the Minister.
8. The Council will by such means as appear desirable give such publicity to these arrangements as they may think necessary for bringing them to the notice of persons to whom they may apply."

Now that the scheme has been formally approved by the Ministry of Health, steps are being taken to establish the organisation necessary to operate the scheme, and it is hoped that the arrangements will be completed in 1945.

V. PORT HEALTH.

Once again, for reasons of security, we refrain from giving summarised facts and figures depicting in full the activities at the City, Avonmouth and Portishead Docks. Sufficient data can, however, be made available which indicates a year of progress in connection with port health work generally.

Health of Crews.

Regular daily visits were made to all vessels from " infected ports " to ascertain the health of the crews. In this way close contact has been maintained and any illness among the crew has been notified and kept under control more or less from the onset.

During the year under review a total of 187 merchant navy and civilian patients were disembarked and removed to local hospitals under the supervision of the port health staff. Only five " suspected " ships arrived at the port, but as these were all of the passenger type, the requirements under the port sanitary regulations that were put into operation involved a considerable amount of extra work. A total of 4,934 persons became subject to the provisions and safeguards of these regulations and notifications were sent to the various health authorities covering 3,192 contacts.

During the year all " foreign going " vessels were boarded on arrival at the docks, and from the invasion period onward all " home trade " and some coastwise vessels operating within home trade limits have been boarded upon arrival.

Ship Inspection and hygiene of crew spaces.

A considerable amount of work has been carried out in connection with this important phase of port health duties, following a total of 2,122 re-visits made to foreign-going ships and 2,508 re-visits to home trade and coastwise ships during the year. Quite a number of these visits were for the purpose of ascertaining the health of the crew. It will be appreciated that routine inspection followed by frequent re-visits has been necessary to obtain satisfaction when dealing with defects found in crew accommodation. The defects dealt with included those due to faulty original construction, to wear and tear and to dirt, vermin and other prejudicial conditions. The figures covering verminous conditions show an increase and it is regrettable that a large number of British ships are involved. The degree of infestation, however, is not so high as was found some years ago. Unfortunately under wartime conditions at sea the responsible officer cannot always undertake frequent and satisfactory inspection of the accommodation and therefore constant attention must be given to this matter and counter measures arranged whilst ships are in port, to keep vermin infestation in crews' quarters within reasonable bounds. The results of these measures—pressure spraying of insecticides or fumigation with hydrogen cyanide gas—vary a great deal, as much depends on particular circumstances.

Inspection of Meat and other Foods.

The condition of imported food has received the usual careful attention of the department, and it has been reassuring to note the general improvement in condition of food cargoes upon discharge. Quick loading and rapid dispatch has, of necessity, been a principal aim during the war years, and these objects adversely affect the provisions and safeguards with regard to supervision of lading, discharging and storage of cargoes. In spite of this the quantities of foodstuffs detained for reconditioning or condemnation are low, and if considered in percentage terms of all foods discharged would show an infinitesimal figure. Co-operation with the various officers of the Ministry of Food has been well maintained, ensuring a working arrangement the results of which have been reflected in the satisfaction often expressed by the general public.

Dock sanitation.

Considered under this heading is the important question of refuse collection and disposal within the Avonmouth dock area. Arrangements for this work in the past were unsatisfactory, but thanks to the adoption of recommendations discussed at meetings between the chairmen and officials of the departments concerned, far more satisfactory arrangements for collection and disposal of refuse were introduced during the year. Due to the unsuitability of the site and lack of control, Broad Bill tip, situated within the dock area, was a continual source of nuisance and breeding ground for rats and flies. The Port of Bristol Authority decided to close this site for tipping and it was suitably sealed off during March, 1944. Tipping was then commenced at " Mitchell's Pill," a site about two miles north of, and remote from, the dock area. Tipping was also commenced at Bank Farm, about a mile beyond the above tip, by a private firm who dispose of hold or trade refuse from ships, and as a result of frequent advisory visits to the sites, these tips are now maintained in a satisfactory condition. These arrangements solved the vexed question of refuse disposal, but there still remained the problem of frequent collection and removal to contend with, and it was finally agreed that the city engineer's department should handle the collection and disposal of ship domestic refuse, together with quayside and shed sweepings. A matter of this kind needs the constant attention of the port health authority, and whilst there remain a number of points at which improvement is still needed, it can rightly be claimed that the inauguration of this new system of refuse collection and disposal at Avonmouth docks has done much towards the establishment of hygienic conditions within and around the dock area.

Public conveniences.

All the public conveniences within the dock area at Avonmouth and Portishead have been maintained in a satisfactory manner throughout the year. Two new conveniences have recently been constructed at Portishead and it is proposed to construct another there in the near future. These conveniences are comparable to those at Avonmouth docks, can be readily cleansed and comply with modern standards of sanitation. A survey of the sanitary conveniences in the Bristol City dock area was carried out and representations were made to the appropriate departments regarding replacement where found necessary.

Rat Repression.

(1) *Docks.*

As a result of the survey made at Avonmouth in 1943, it was revealed that, owing to the degree of infestation and large area involved it was essential that the services of an additional rat catcher be obtained, and as the Port of Bristol Authority were unable to obtain an experienced man the health department rat services were made available in the dock area. From frequent inspections and reports obtained it is clear that the general position on the dock has improved by the measures of control which have been achieved in these areas, which present ideal surroundings for rats. It is too optimistic to envisage a rat-free dock area, but this will not deter those concerned from making every effort to approach as near as possible to that ideal state of affairs. Of the 2,075 rats recovered from the dock area during 1944, 1,317 (approximately 64%) were sent to Canynge Hall laboratory for examination. No *B. Pestis* was found in any of the rats examined.

(2) *Ships.*

Routine inspection for rat infestation was carried out on all foreign going cargo vessels during the year and a large number of home trade and coastwise vessels, barges and port craft were also examined. In all cases efforts were made to be present immediately the holds were uncovered as, in this way, a good indication of the rat infestation is available because the accumulation of evidence, if any, is visible and undisturbed. With few exceptions, ships have been maintained in a satisfactory state. This is worth particular mention as, under wartime conditions, it was expected that there would be a great increase in serious infestations. That these expectations have not materialised is due in no small measure to the recognition by the shipping companies and the Ministry of War Transport of the need to keep ships as free as possible from rat infestation, and to their agreement to fumigate ships whenever found necessary. Of the 540 rats recovered from ships by trapping and fumigation during the year, 488 (approximately 83%) were sent to the laboratory for examination. None of those sent for examination was found to be infected with *B. Pestis.*

Inspection of Dock Premises.

(1) *Factories and work places.*

Regular and frequent visits were made to factories and work places within the dock area during the year. Particular attention was directed to the maintenance of statutory provisions with reference to sanitary conveniences, washing and cloakroom facilities and general cleanliness. Where nuisances, arising through lack of cleanliness or defects have been observed, informal requests were made to the management and the nuisances abated in each instance.

(2) *Canteens.*

There are 15 canteens within the dock area; ten of these are private and attached to the various factories, the remaining five are under the management of the Port of Bristol Authority. These premises are frequently inspected throughout the year, and the majority were maintained in a clean and satisfactory condition. Instances of vermin (rat and insect) infestations, unclean conditions, defective ventilating and lighting arrangements have been found and dealt with in a few cases.

Altogether, 2,278 visits were paid during the year on the docks, including 745 to premises in the dock area, 1,073 to public conveniences, 105 to tips, 91 to salvage dumps, and 264 regarding dock sanitation.

Everyone connected with shipping activities are noting with interest the claims of various seafaring organisations for better standards of accommodation and other amenities for all those who " Go down to sea in ships." A great keenness and interest has been shown by the whole of the port health staff, who have worked long and irregular hours in order to cover all the various activities coming under the responsibility of the Port Health Authority.

Airport Sanitation.

The sanitary control of airports and aircraft is a matter receiving increased attention. It is realised that whilst people and cargo can be transported over long distance in a short space of time by aeroplane, it is also capable of conveying disease and agents for the propagation of disease from foreign countries with equal rapidity. Much thought has already been devoted to this subject and the importance of adequate facilities being provided at airports to assist those responsible for preventing the introduction of disease, is now becoming more generally recognised.

Measures of disinfection and disinfestation of aeroplanes arriving at the Bristol Airport during the year have been carried out and, in addition, a comprehensive survey was made by a member of the inspectorial staff in connection with mosquito control in the Whitchurch area. The post-war growth of civil aviation will accentuate the need for medical and sanitary control of airports, and in this connection much remains to be done to improve the technique and extent of the precautionary measures now being employed.

Appendix I.

THE EFFECT OF WAR UPON THE HEALTH OF BRISTOL

by Dr. R. H. PARRY, Medical Officer of Health.

Population.

On the declaration of war in September, 1939, the population of Bristol according to the latest estimate of the Registrar-General at midsummer of that year was 419,200. This figure was considerably affected during the following years by a number of factors. A large number of men and women joined the Forces. In September, 1939, Bristol became a reception area for several government departments. Many war workers immigrated into the city. On the whole the result was considerable overcrowding of families in certain areas of the city.

Evacuation.

The first air raid occurred on June 25, 1940, and heavy raiding continued over a period of fourteen months, 563 alerts being sounded in the city during that time. As a result of urgent representation from the City Council the Ministry of Health sanctioned evacuation of certain areas of Bristol on January 25, 1941 and later, within the next few weeks, other areas were added. At the beginning of May the Ministry of Health agreed that the whole of the city should be declared an evacuable area. The following categories became approved for official evacuation:—

i. School children. Nearly 22,000 were evacuated and on March 2, 1942, nearly 50 per cent. remained in the reception areas.

ii. Mothers with children.

iii. The homeless.

iv. Expectant mothers. Nearly 800 mothers over a period of four years were evacuated to special maternity homes and hospitals in reception areas for confinement.

v. Babies. In March, 1943, sixteen residential nurseries were maintained by Bristol in reception areas, providing accommodation for 473 babies under five years old.

vi. The aged (over 65 years of age).

vii. The infirm and the invalid (including the blind).

It is difficult to assess exactly what effect this change in the population of Bristol had upon its health problems, but we know that there were appreciable effects. A simple example—the low incidence of scarlet fever in 1941 was probably due to the absence from the city at that time of the most vulnerable section ot the population.

Housing.

As a result of the heavy bombardment of the city from the air, much damage was done to house property and in the period mentioned some 81,430 houses were damaged, with 3,092 of these completely destroyed, besides 2,100 rendered uninhabitable. To a certain extent conditions were alleviated by the evacuation of families from the city. On the other hand, there was much overcrowding in some quarters as the result of the destruction of many homes, and overcrowding became worse when air raids ceased and many families returned. During the latter period of the war there was an increased invasion of the city by both military and civilian workers, and billeting resulted in still further reduction in the "home" space available to the civilian population. Shortage of labour and materials prevented the normal house repairs being carried out, and houses in large numbers became decayed and unfit for human habitation. As no new houses had been erected to replace these decayed dwellings, large numbers of the people were and are still living under unhealthy environmental conditions. As time passes, the conditions are getting worse. Of all war problems in a blitzed city, the housing problem has been and still is, the most difficult, and it is potentially the most harmful to the health of the people. What damage it has done in that respect during the war it is impossible to assess.

The Effects of Air Raids on the People's Habits.

The air raids affected the customary routine of the home considerably. During the winter of 1940/41 alerts were sounded as darkness fell and whole families moved into their shelters. It was very apparent that the ordinary attention with regard to cleanliness was not being paid and the usual bed-time bath was forgotten on most occasions. The full significance of this was not apparent until children were examined for evacuation, when approximately 15 per cent. (ranging from 3 per cent. to 20 per cent. according to school locality) were found to be infested with head lice to a greater or lesser degree. The increased evidence of scabies, too, was no doubt due in some measure to the prevalence of shelter life and changed habits in the home, for the incidence of scabies as measured by treatments at clinics jumped from about 200 cases per annum in the pre-war years to nearly 9,000 in 1942.

Scabies Baths.

Year.	Patients.	Attendances.
1939	516	1,145
1940	1,101	2,193
1941	4,402	8,673
1942	8,662	16,717
1943	7,823	15,677
1944	5,348	10,452

Many cases were treated by private practitioners in addition.

"Lethane 384 special" for the treatment of verminous heads (referred to elsewhere in this report) and benzyl-benzoate for the treatment of scabies proved invaluable and helped considerably in preventing the spread of these conditions.

Another effect of air raids upon the people is described by the chief education officer in a report prepared at that time for his Committee. He stated that often children were too tired to attend school following nights of heavy raiding, or if they attended were too tired to take part in the rigorous routine of school life. How much the same conditions must have affected the other members of the home and with what results can never be known.

Food and Nutrition.

In spite of the change in the mode of living, there is little evidence that the nutrition of the people was much affected. A special investigation undertaken by Dr. Dorothy Woodman and others did show that amongst a group of pregnant women there was evidence of insufficiency of Vitamin C. This was not unexpected, however, because of the shortage of fresh fruit under war conditions. However, the distribution of cod liver oil and fruit juices, together with priority milk and the good canteens established in factories and many other places of work, had considerable preventive value.

Health Problems.

From the records of 1939 it would appear that we were preparing to meet dangers to the public health from three directions:—

I. The war problem of personal injuries.

II. The more indirect effect of war upon health—the possibility of contamination of food and water supplies resulting from war damage.

III. The peace-time problems of public health as they occur in a large community, accentuated by the conditions of war.

I.—The Specific War Problem of Personal Injury.

In those early days, the question of protection of the individual against war injuries appeared to be treated as one for the non-medical expert—the specialist who knew the effect of high explosivs and incendiaries upon brick walls and steel plates, and it appeared to the public health officer that there was a tendency to overlook public health problems arising from wartime conditions because of the concentration of attention on the problem of safety from bombing or gas attack. There was, however, one factor common to both points of view, namely, dispersal. To reduce the number of casualties, dispersal was aimed at. To prevent the spread of infection, dispersal was equally important. On this common ground the policy that was adopted in Bristol as far as possible was to provide a shelter for each family. By the winter of 1941, nearly 300,000 persons had been supplied with shelter accommodation, mostly at or near their homes, some 50,000 householders (more than 200,000 people) being provided with "family" shelters. The fact that a high proportion of the people were supplied with "family" shelters may have played a very important part in protecting the health of the people during the trying time that followed. Of importance, too, is the fact that an effective medical and nursing service was provided for those people who were not using a "family" shelter, but were congregated in shelters of the communal type. This service consisted not only of a personal service by nurse and doctor as required, but an environmental sanitary service as well. The shelters were kept clean, bedding and blankets periodically disinfected in steam sterilisers, and all beds and parts of the shelter liable to be infested with bugs, fleas, flies, etc., were sprayed with the invaluable "Lethane 384 special" (about 10 per cent.). A mechanical compressor unit was used for the purpose, and special teams were employed full-time upon this work.

In view of the importance attached to disinfection of the air at the present time, it is interesting to note that all the shelters in Bristol at the time under review were daily disinfected with Chloros. Again this was carried out by a high pressure pump machine or by hand sprayers. The floors of the shelters and of lavatory compartments were brushed over daily with a disinfectant sawdust, this acting both as a deodorant and a disinfectant.

We are satisfied that these preventive measures did play an important part in protecting the health of the people of Bristol during those trying days.

Whilst there may be evidence elsewhere in this report of less attention being paid by parents to the health of their children as the result of war conditions, an analysis of one night's casualties indicates that the greatest care was taken by parents and guardians to protect the life and limb of children in the city. In one night's raid 51 per cent. of the fatal casualties were men and 63 per cent. of the seriously injured, whereas children under sixteen years of age formed 9 per cent. of the fatally injured and 7 per cent. of the seriously injured. When these figures are standardised it is found that men took three times the risk of children of being killed, and six times the risk of children of being seriously injured.

II.—The Indirect Effect of War upon Health; The Contamination of Water and Food Supplies.

Water.

Damage to water supplies had been expected, and in anticipation of the Water Company's supply being cut off, all wells in the city were examined and tested with a view to their utilisation if necessary. Facilities were made available for thorough chlorination of both wells and damaged mains. Under the existing arrangements for laboratory control provision was made for the examination of all water after the mending of pipes and before releasing it to the public. The same measures of sampling and chlorinating were applied where, in those areas left without mains water, it became necessary to take water in water-carts to houses. It was advertised very freely that all water must be boiled and also that water which had been stored in baths and containers of all kinds should be boiled. Much damage was done to the water supplies during the raiding period from 1940—1944. Water mains were damaged on 27 separate occasions—the total number of mains directly damaged was 399, and in addition nearly 4,000 communication pipes were out of action. The maximum number of mains affected in any one raid was on the night of November 24, 1940, when the water engineer reported that a total of 95 fractures had occurred.

Milk.

The damage to the water supply directly affected the quality of the milk distributed. Pasteurising plants were put out of action, with the result that at times immediately following raids pasteurised milk was the exception rather than the rule. In addition, of course, the shortage of labour which was not overcome by the regionalisation of distribution resulted in a "milkless day" which resulted in much waste of milk, was a serious inconvenience to families with young children and caused great discontent generally amongst the people.

Foodstuffs.

Many food warehouses were damaged. Arrangements were made for all salvaged foodstuffs to be inspected for fitness for consumption by the sanitary inspectorial staff.

Lethane.

When one large warehouse storing tinned goods was damaged in November, 1940, salvage was delayed for some some time and there was considerable infestation by flies early in the following spring. With all such entomological problems, the Public Health Department can always rely upon the assistance and advice of Dr. H. J. H. Kearns, of the University of Bristol Horticultural Research Station. His advice was sought on this occasion, and on May 22, 1941, he visited the site with the medical officer of health and recommended the use of "Lethane 384 special," which he had found of great value in the control of insect pests in his horticultural work. He recommended its use as a 10 per cent. solution in odourless paraffin, to be sprayed in a mist by a mechanical compressor unit which he loaned from his department. This was remarkably effective and its use then and during the summer of 1941 was invaluable in destroying flies and preventing fly infestation.

At the same time, the problem of verminous heads in children being evacuated from the city was uppermost in our minds. (This is referred to elsewhere in this report.) Several batches of children had been sent away from Bristol and an undertaking had been given that all these would be sent out in a cleanly state. We were faced with the difficult task of cleansing verminous heads. In spite of hard work by health visitors and auxiliary (A.R.P.) nurses, taking the usual measures, re-infection was common and our efforts to eliminate head lice not completely successful. Dr. Kearns gave us his experience that after considerable use of Lethane there was no ill effect on his sensitive skin; we therefore decided to try it on the heads of the school children in our health centres, at first as a 5 per cent. solution of "Lethane 384 special" (which is in itself a 40 per cent. solution) and later, as this weaker solution caused no irritation, a stronger (40 per cent.) solution was used and found to be effective in destroying both lice and nits. Later, all children to be evacuated were treated in this way with excellent results. As far as is known, this was the first occasion on which Lethane was used for this purpose.

The Laboratory.

In all this work, the laboratory occupies a key position in the control of the quality of the water and food supplies available to the public. The excellent arrangement whereby the University Preventive Medicine Laboratories were directly responsible for all such supervision proved most effective throughout the war years. Dr. K. E. Cooper, the senior officer in charge of the laboratories, submitted the following report when the raiding was over:—

"1. *Water.* Heavy blitzing, especially early in the war, caused some difficulty with water supplies. All mains over 4 ins. diameter were analysed when repaired, and there was little evidence of contamination, owing to heavy chlorination of supplies. Greater danger existed from the fact that during temporary shortage the public used unauthorised supplies (especially water escaping from leaks in fire hoses, often carrying harbour water), but when the system of alternative controlled emergency supplies was put into operation, this factor was minimised.

2. *Milk.* Standards have definitely deteriorated. Difficulties with labour, transport and plant equipment have caused higher bacterial counts in pasteurised milk—50 per cent. failures as against 10 per cent. pre-war, of the official count test were obtained. The introduction of high temperature short time pasteurisation has probably lessened some of the difficulties, but the unsatisfactory quality of the raw milk received for pasteurisation makes even this process difficult to maintain at an efficient standard.

The impracticability of pasteurising all milk at the present time (except in the emergency of epidemic disease traced to milk as a source), coupled with rationing and area distribution schemes, often means that a consumer has to be satisfied with milk which is unsafe, and must be boiled before consumption. Increased supplies of dried milk are being introduced as much as possible.

3. *Foodstuffs.* Much food has been salvaged for human and/or animal consumption after damage from fire, water or blast. The salvage of waste house food for pig feeding has meant that bins of foodstuff are in the street and encourage rats and dogs to feed on this material. Whether the occurrence of cases of Trichinosis (previously unknown here) is connected with this is unproved."

In spite of these possible dangers, no serious outbreak of disease occurred, nor indeed could any case of infection be traced to contamination of the water, milk or food supplies as the result of war damage.

III.—Peace-Time Problems Accentuated by the Condition of War.

It is said that the most sensitive index we have of environmental conditions is the *infant mortality rate.* The following table gives the figures for the war years as compared with 1938.

Year	Total Infant Deaths	Rate per 1,000 Live Births
1938	256	42
1939	261	42
1940	358	56
1941	290	54
1942	235	37
1943	313	45
1944	268	35

Two figures stand out. (1) The increase in the rate in 1940, which was the highest infant mortality rate since 1930. The increase as compared with previous years was due to respiratory diseases and to diarrhœa and enteritis. (2) The figure in 1944 (35 per 1,000 births). This was the lowest in the records of the city, due mainly to the low incidence of pneumonia and diarrhœa and enteritis.

The curve for infant mortality, although followed closely by the neo-natal mortality curve, bears no resemblance to the *maternal mortality* curve, which showed a definite downward trend throughout the whole period of the war, with the lowest rate ever in the city in 1941 of 1.3 per 1,000 births.

The *birth rate,* with the exception of 1941, showed a steady increase in rate to 1944, when at 19.15 per 1,000 population the rate was the highest since 1923.

Year	NUMBER OF BIRTHS Leg.	Illeg.	Total	Rate per 1,000 Population
1938	5,845	213	6,058	14.85
1939	6,035	184	6,219	14.84
1940	6,153	260	6,363	15.47
1941	5,130	249	5,379	14.94
1942	6,120	302	6,422	17.73
1943	6,457	434	6,885	18.57
1944	7,218	549	7,767	19.15

The *death rate* during the war years was considerably higher than in peace-time. Many of the young adult and the fittest members of the community were away on war service, so that the death rate should be higher. On the other hand, the number of deaths from cardio-vascular conditions was higher throughout this period, and the number of deaths from pneumonia and bronchitis (discussed elsewhere) was much higher in 1940 and 1941.

Year	Deaths, excluding Civilian War Deaths		Civilian War Deaths	
	Number	*Rate*	*Number*	*Rate*
1938	4,864	11.71		
1939	5,154	12.25		
1940	5,941	14.4	475	1.2
1941	4,927	13.69	686	1.90
1942	4,298	11.87	67	0.18
1943	4,593	12.39	5	0.01
1944	4,457	10.99	2	0.005

Infectious Disease.

The following table gives the number of deaths and notifications in five of the commonest infectious diseases.

Disease	Year	Notifications	Deaths	
				Bronchitis
PNEUMONIA	1938	398	223	128
	1939	403	213	142
	1940	504	363	548
	1941	539	281	302
	1942	392	228	180
	1943	496	268	303
	1944	484	213	221
SCARLET FEVER ...	1938	1,033	1	
	1939	890	2	
	1940	969	4	
	1941	399	3	
	1942	793	1	
	1943	913	1	
	1944	720	1	
DIPHTHERIA	1938	647	22	
	1939	619	25	
	1940	784	15	
	1941	529	20	
	1942	370	7	
	1943	378	5	
	1944	161	2	
CEREBRO-SPINAL FEVER	1938	7	5	
	1939	7	4	
	1940	119	30	
	1941	132	29	
	1942	49	8	
	1943	27	9	
	1944	17	2	
ENTERIC FEVER ...	1938	3	nil	
	1939	10	1	
	1940	43	1	
	1941	251	3	
	1942	3	3	
	1943	4	1	
	1944	2	nil	

Diphtheria.

Apart from a rise in 1940 there was a steady fall in the incidence of diphtheria. Immunisation against diphtheria has been provided by the City Council since 1929 and an intensified campaign to increase the recruits was carried out throughout the early part of the war. During the first four years of the war, up to the end of 1944, 40,000 children had completed the full course of injections and over 8,000 had received the single " booster " injection. The figures in the table above give evidence of the success of the campaign and protection.

Scarlet Fever.

The interesting fact about the incidence of scarlet fever is that 1941 produced the lowest rate in the records of the city, in spite of the fact that it covers the blitz period in the spring of 1941 when life in the shelters was prevalent. On the other hand, during that year (up to March 31, 1942) some 21,000 school children were evacuated from the city and approximately 50 per cent. of those evacuated had remained in the reception areas.

Pneumonia and Bronchitis.

The incidence of these diseases rose sharply in 1940 and 1941. The three years commencing 1940 brought a substantial increase in both these conditions also as a cause of death, the average rates for *the four years* being pneumonia 0.75 and bronchitis 0.87, compared with an average over the *previous ten years* of pneumonia 0.57 and bronchitis 0.38.

Cerebro-Spinal Fever.

There was a considerable rise in both the number of cases and the number of deaths during 1940 and 1941, but the case mortality was much lower than during the war of 1914-18.

Enteric Fever.

As already mentioned elsewhere, no epidemic of this disease can be traced to war damage. It was a matter of pure coincidence that during 1941, when air raids had mostly passed, 244 notifications of Paratyphoid B were made. The cause was a carrier who later became a case and who was employed in the making of artificial cream. Of these 244 notifications, 203 were clinical cases and 41 intestinal carriers. One hundred and sixty-seven of the 203 were primary and the remaining 36 secondary cases.

Tuberculosis.

Year	DEATH RATE PER MILLION LIVING			
	Tuberculosis in all forms		*Pulmonary Tuberculosis*	
	Eng. & Wales	Bristol	Eng. & Wales	Bristol
1938 ...	602	649	476	533
1939 ...	618	746	519	658
1940 ...	679	663	570	576
1941 ...	691	874	569	702
1942 ...	557	691	509	585
1943 ...	564	774	517	623
1944 ...		626		550

The death rate from tuberculosis in Bristol has always been higher than for England and Wales. From the above table, it will be seen that this difference was accentuated by war conditions.

The spread of tuberculosis under war conditions was one of the problems that might have been anticipated by those in authority. It is most regrettable that inadequate hospital accommodation and hospital staff prevented an effectual scheme for the isolation and treatment of this disease from being put into operation during the war years. In this matter, during this period, local authorities were completely impotent and for many years the community will have to pay heavily for lack of organisation and facilities which might have made it possible to tackle the problem on scientific lines.

The Venereal Diseases.

I am indebted to Dr. A. E. W. McLachlan, Director of the Bristol services, for the following notes: —

In the past, conditions inseparable from war have always favoured the spread of venereal diseases. This is equally true of the 1939-1945 period. The inception of the V.D. Scheme in 1917 and the establishment of treatment centres throughout the country have been followed by a gradual, marked decrease in all forms of syphilis, and by a lesser decrease in gonorrhœa and chancroid. It was anticipated, however, that in the event of war, these infections would again increase. This was clearly indicated by the raised incidence of early syphilis in males in the latter months of 1938, following the Munich crises and partial mobilisation. In this war, new factors—evacuation, longer hours of work, mobilisation of large numbers of women into industry, leading to relaxation of home influence, black-out, curtailment of transport services, fear of air raids—favoured the spread of these diseases in addition to pre-existing causes.

Venereal disease has always been more prevalent in heavily populated areas, and especially in seaports. The trend of infections dealt with in the City and County of Bristol clinics is shown in the table which follows.

Syphilis.

From the public health aspect, early syphilis, that is within one year of infection, is of the greatest importance as the time of transmission of infection. The 1938 rise in male cases is followed by an apparent drop in 1939 and 1940, owing to the reduction of the clinic *clientele* by mobilisation. 1941, 1942, 1943 showed a progressive increase, the "peak" apparently occurring in the last year. A certain proportion of these infections occurred in seamen of allied nationalities, and from 15 to 25 per cent. of infections were acquired in foreign ports. Even when correction is made for the number of infections occurring in foreign seamen, there is still a marked increase in syphilis in the male population. The rise in early syhpilis in the female commenced later, but has continued to 1944. The late manifestation of syphilis, and congenital syphilis, have so far shown no serious increase.

Gonorrhœa.

The actual incidence of gonorrhœa in the civilian patients remains obscure, because of the number of patients treated by their practitioners. Some estimate can, however, be made from the incidence-ratio of gonorrhœa to syphilis in the Services—approximately 7/8 to 1.

Chancroid.

In this area, chancroid has shown very marked fluctuations in incidence, local "epidemics" occurring in 1942 and 1944. This disease is of importance because of possible association with syphilis.

That the incidence of venereal disease has not been higher and caused more interference with the war effort is due, in part, to the pre-existing treatment centres, and to the control measures subsequently introduced.

Additional clinics were established at Southmead Hospital and at Avonmouth Docks, which made possible a meticulous inspection of seamen. A popular education campaign was carried out in association with the Central Council for Health Education. The confidential tracing of contacts to infection, and the follow up of defaulters were instituted, and carried out by a male and female welfare officer specially appointed. Official action under section 33B of the Defence of the Realm Regulations strengthened these control measures.

Increased provision of bed accommodation for venereal disease cases was made, new wards being built in Southmead Hospital for female in-patients, and a ward converted in Snowdon Road Hospital for the reception of males, making possible the application of intensive schemes of arsenical treatment of syphilis and the penicillin treatment of both syphilis and gonorrhœa. In the prevention of congenital syphilis, routine ante-natal serological tests have been applied.

The spread of venereal disease during the 1939-1945 period is less than at one time seemed possible. With the measures now available, we can look forward with hope to controlling the post-war incidence.

The Incidence of Venereal Disease, 1937—1944.

	1937		1938		1939		1940		1941		1942		1943		1944	
	male	*female*	*male*	*female*	*male*	*female*	*male*	*female*	*male*	*female*	*male*	*female*	*male*	*female*	*male*	*female*
ENGLAND & WALES																
Syphilis	8,069	5,165	7,832	4,986	7,273	4,605	7,093	4,226	7,790	4,972	8,529	6,542	8,790	7,960	7,667	8,251
Gonorrhœa ...	29,250	7,787	27,947	7,746	24,811	6,489	21,057	5,882	20,572	7,314	17,956	8,413	18,215	10,043	16,629	10,646
Chancroid ...	824	15	889	15	827	11	887	21	1,017	20	969	27	773	32	628	28
BRISTOL																
Syphilis (total) ...	97	36	94	76	74	74	85	30	144	61	225	73	238	117	152	137
Early (included in total) ...	34	10	53	10	43	13	42	8	114	23	182	43	199	73	126	97
Gonorrhœa ...	439	109	415	107	377	125	331	98	398	124	440	157	526	186	317	235
Chancroid ...	3	—	5	—	5	—	8	—	2	—	38	—	7	—	31	—

Hospital Services.

Much has been said about the success of the Emergency Hospitals Services established for war purposes. To some of us who have been intimately connected with hospitals—voluntary and municipal—for many years, there appeared to be two outstanding reasons why it was possible to operate a scheme which interfered so much with the administrative freedom of these institutions.

1. The enthusiasm with which the medical profession—general practitioners and specialists—the nursing and lay staffs of the hospitals threw themselves, without personal consideration, into the service of their country.
2. The arrangements whereby the government became financially responsible for the hospital treatment (including the payment of medical staff) of so many and varied cases. As is well known, these are matters which in peace-time must be settled before whole-hearted co-operation between hospitals and between the staff serving those hospitals can be brought about.

Had the full possibilities implicit in the scheme been realised at the outset, and had full advantage been taken of the self-sacrificing enthusiasm of all concerned, it would have been possible to go a long way towards breaking down the differences between voluntary and municipal hospitals and creating a unified hospital service. Unfortunately, these possibilities were never realised, and the scheme was administered on lines which maintained the division between voluntary and municipal hospitals.

Throughout the whole period of the war there was great shortage of hospital beds, and the civilian population suffered considerably as the result.

Port Health.

During the war the problem of public health at both the sea and air port has been a matter for continuous and increasing vigilance. The complete or partial closure of ports on the east coast caused a considerable addition to both military and ordinary trade traffic at the west coast ports. Increased traffic from foreign ports has brought with it increased risk of the introduction of epidemic disease from these places. These facts necessitated a vigilant staff in continuous attendance at the ports.

Of the special precautionary measures taken may be mentioned the arrangements for the formation of typhus teams. These consisted of doctors, nurses, sanitary inspectors, ambulance drivers and men attendants to form disinfecting parties, all specially trained in their respective parts in the work of the team. In addition, a disinfestation team was ready to operate and once again Lethane was the preparation selected for use both as a preventive and disinfesting agent.

In this brief report an attempt has been made to indicate the public health problems which we thought in those early days a world war might bring with it. We expected and made preparations to meet many problems of varying kinds and seriousness; a few only came about. After passing through the experience of a total war it is hardly possible to understand one's thoughts and forebodings before it happened. However, when one looks back it appears as if every item in the public health history of Bristol during this period falls quite naturally into position and should neither have surprised us nor have been unexpected.

May, 1945.

Appendix II.

PREVENTION AND CURE OF BLINDNESS

By Mr. R. R. GARDEN, Consultant Ophthalmic Surgeon
and
Dr. R. H. PARRY, Medical Officer of Health

The following report is concerned with the incidence of blindness, its prevention and treatment in Bristol, and with the consideration of further action which might be taken locally to deal with certain aspects of the problem.

Incidence.

The number of blind persons on the Bristol Register in January this year was 782, divided into the following age groups:—

Age 1—5	1
5—16	19
16—21	9
21—40	65
40—50	80
50—70	300
Over 70	308
	782

The following table gives the causes of blindness according to the scheme and nomenclature adopted in the official form B.D. 8 for the examination of applicants for admission to the Register.

(In view of the incompleteness of past history and other factors, it is sometimes not possible and often very difficult to be certain about *basic or underlying causes,* but in the table below *probable* causes have been assigned to the cases in doubt, the comparatively small number of which does not materially affect the conclusions to be drawn from consideration of the question.)

Causes of Eye Defects.

A. *Congenital and Undetermined Causes*:—

Congenital, hereditary and developmental defects	76	
Myopic error	68	
Glaucoma, primary	97	
Cataract, primary	142	
Other primary ocular defects, *e.g.*, primary detachment of retina	30	
Tumour—intro-ocular	2	
Other, *e.g.*, amblyopia ex anopsia, etc.	22	
		437

B. *Infectious and Bacterial*:—

Ophthalmia neonatorum	47	
Gonorrhœa	2	
Syphilis—congenital and acquired	57	
Local infection of coats of eye	17	
Specific fevers, *e.g.*, smallpox, measles	14	
Meningitis—cerebro-spinal and other non-tuberculous forms	2	
Tuberculosis	5	
Eczematous kerato-conjunctivitis	1	
Septicæmia, chronic; auto-toxic, focal sepsis	59	
Other infections and bacterial diseases	3	
		207

C. *Traumatic and Chemical*:—		
Industrial trauma	6	
Non-industrial trauma	28	
Systematic poisoning—*e.g.*, tobacco	6	
War trauma	7	
Indirect; sympathetic ophthalmia	12	
		59
D. *General Diseases*:—		
Vascular diseases, including cerebral vascular lesions	26	
Diseases of the central nervous system	24	
Intracranial neoplasm	6	
Diabetes	4	
Other general diseases	2	
		62
E. No information obtainable	17	
		17
		782

Ascertainment and Certification.

The Royal Blind Asylum receives notice of persons appearing to be blind from many sources; hospital almoners, doctors, assistance board, social welfare officer, health and school medical services, etc. From whatever source notification is received, arrangements are made for one of the Blind Asylum's home teachers to visit and obtain information. Arrangements are then made for the certifying ophthalmologist to carry out a clinical examination and the case is accepted for entry on the register or otherwise, according to his certification. An average of approximately 70% of the cases examined are certified as blind within the meaning of the Blind Persons' Acts, which define a blind person as one who is " so blind as to be unable to perform any work for which eyesight is essential." Many of those not certified are suffering from failing sight, but not of such degree as to permit their admission to the Blind Register. If it appears that the sight is likely to deteriorate in such cases, a re-examination is fixed for some future date, three, six or twelve months afterwards.

It is not thought that the procedure for ascertainment can be improved upon. The child welfare and school medical inspections bring to light cases among the very young requiring attention, whilst few persons in the older age groups fail to seek advice when their sight is failing. Cases are also referred to the specialists by opticians who suspect that a case may be suffering from one of the causes which may lead to blindness.

Treatment.

Treatment is available to all who need it, and in so far as it rests with the authorities, treatment is provided. Of the 700 cases on the register, 48 were advised to have treatment (32 surgical, 2 medical and 14 optical). Five of the surgical cases obtained treatment, 19 refused, and in the remaining eight cases there was no record of further examination. There was a much higher proportion of cases accepting optical treatment; nine obtained it as advised, the results in four cases were untraced, and only one refused.

There are no difficulties in the way of treatment from the side of the authorities. In every case seen by the certifying ophthalmologist careful consideration is given to the possibility of improving the sight by treatment. If any suitable cases have been under the care of another surgeon, they are advised to see him again with a view to having further treatment; otherwise the certifying ophthalmologist offers his own services at the Eye Hospital. In a number of cases, it is found that treatment is not advisable on general grounds—ill health, senility, etc.

The real difficulties lie mainly with the higher age groups who through lack of courage, set habits, inertia, obstinacy, etc., decline to undergo treatment, which might provide them with useful sight for their remaining years. The high proportion of recommended cases who refuse surgical treatment is a clear indication of the psychological aspect of the problem.

During the three years 1940/2 of 58 persons examined by the Committee's eye consultant but not certified as blind, advice was given to 34 cases to have treatment, seven surgical, 10 medical, and 17 optical. In the absence of a full follow-up service, further information is not available on how these cases responded to the advice.

Facilities for Ophthalmic Treatment.

Outpatients.

I am not aware of any shortage in the city in the provision of facilities for outpatient or inpatient treatment. The local authority has provided the following:—

(1) Clinics and centres for the welfare of expectant and nursing mothers.
(2) Infant welfare clinics for children up to five years.
(3) Treatment clinics for all children of school age.
(4) V.D. clinics.

Out-patient treatment is also provided at the voluntary hospitals, but there is no out-patient service supplied at the municipal hospital at Southmead.

In-patients are admitted to all hospitals, including Southmead Municipal Hospital but excepting the Bristol Royal Hospital. This latter hospital now has an arrangement whereby all eye cases are referred immediately to the Bristol Eye Hospital for treatment.

The special attention of the Committee is drawn to the work done by the Eye Hospital. Last year 930 patients were admitted for in-patient treatment, whilst over 22,000 cases were dealt with in the out-patient department.

Preventive Service.

In view of the association of good eyesight and good health generally, prevention of blindness should be considered as part of the programme for maintenance of good health. Thus, good housing, good feeding and good conditions of work are all preventive measures in regard to poor eyesight.

It is never too early to take steps to maintain good eyesight, and the Health Committee are wide awake here. There is a comprehensive service to prevent blindness in babies and infants under the Maternity and Child Welfare Committee, the results of which are seen in the disappearance of ophthalmia neonatorum as a cause of blindness. A complete medical service is provided through the health centres, some cases receiving treatment and advice at the centres, others being referred to the Committee's consultant for further examination and possibly for admission to hospital for surgical treatment.

A similar service is provided under the Education Act for children of school age, namely, inspection and treatment at schools and health centres, references of suitable cases to the Committee's consultant at the eye clinic and the provision of institutional or other treatment where advised.

Various regulations are issued by the Board of Trade with regard to the compulsory provision of protective and first aid equipment on premises where certain processes are carried on, but it is to be regretted that there is not a closer working arrangement between industries generally and the health services.

Prevention and Cure of Blindness.

This is a very extensive subject, but the following are some of the interesting points brought out by a study of the groups of causes and of individual cases on the blind register.

Group A. Congenital and Undetermined Causes.

In spite of much research work which has been going on for many years, the present state of our knowledge gives us no reliable guide to the underlying causes of blindness in this, the largest group. We do not know for certain why a cataract develops, for instance, or how to prevent the anatomical and other factors which are found associated with glaucoma. We do know, however, how vision can be restored by the surgical removal of cataract, how to relieve and in many cases to prevent serious deterioration of sight in cases of early glaucoma, and possibly to delay or lessen the effects of progressive myopia when found in the early years of life. (The question of cataract and glaucoma will be referred to again in the section " Follow-up.")

In regard to the controversial subject of eugenic control of marriage and parenthood, it has recently been stated that the effects of its application in reducing blindness from congenital anomalies would probably be counterbalanced on the whole by the loss of potentially useful citizens.

Coming to the second group B, Infectious and Bacterial, it is here that preventive medicine has done and can do so much, for instance, in reducing the incidence and severity of ophthalmia neonatorum, syphilis and tuberculosis. It is in this group also that the clinics and hospitals, by the early and efficient treatment of eye diseases and especially in the care of the health and sight of the young, can do so much valuable work.

The third group, C, Traumatic and Chemical, shows that most of the injuries causing blindness in this comparatively small series of cases were non-industrial. It is true that much monocular blindness is caused through industrial accidents, but for two eyes to be lost or for the second also to be blinded by injury at work is apparently not such a common occurrence as might be expected. Nevertheless, it is of the greatest importance to preserve sight in every way, and the prevention of industrial accidents requires greater consideration.

The incidence of sympathetic ophthalmia, i.e., the dreaded inflammation of the uninjured eye which may follow a perforating injury of the other, is rarely seen nowadays, owing to skilful management of the cases, involving early removal of the injured eye. In all the Bristol cases, the diseases followed non-industrial accidents, and, in all except two cases, occurred many years ago when the patients were children.

The fourth group, D, General Diseases, deals with the effects on the eyes of causes mentioned in this section are not generally amenable to treatment when once established and any alteration in the proportion of blind people in this group will depend on the results of research on the general diseases responsible.

Follow-up.

A list of " watching cases " is kept by the Blind Asylum, and home teachers periodically visit there, and also cases noted by the certifying ophthalmologist as requiring re-examination.

There is, however, no comprehensive scheme for following up hospital cases, and it sometimes happens that patients instructed by the surgeons to attend again periodically, fail to do so. For this reason, deterioration of the sight may take place insidiously, and the opportunity for getting a good result from operation or other treatment may be lost. In cataract, for instance, although the present tendency is for operation to be carried out much earlier, certain cases have to be postponed for various reasons, and unless they attend at intervals as instructed, the age and general health of patients or the condition of the eyes may alter to an extent which makes successful operation improbable. Glaucoma cases sometimes come too late, or early cases under medical treatment may cease to attend, with unfortunate results. Many really require a personal visit to encourage them to carry out instructions or to undergo the operation when the time comes for their admission to hospital. Some have difficulties about leaving home, or need to have additional explanations given about treatment and the reasons for it.

The systematic following-up of hospital cases could come within the province of the hospital almoner, in conjunction with a social worker, health visitors and/or home teachers. In any case, the matter could be arranged and organised by consultation between the authorities concerned.

Recommendations.

Prevention and Treatment.

As will be seen from the foregoing, the services for prevention and treatment are comprehensive, except for a follow-up scheme. The chances of successful treatment in a number of people threatened with loss of sight could possibly be improved by such an arrangement, and it is therefore suggested that on the staff of the medical officer of health there should be a social worker or blind welfare visitor who would have entry to all organisations in the city to follow up and check all local arrangements, bringing facts to the notice of the medical officer of health so that he could use the facilities of the city to obtain any necessary treatment. This social worker could also undertake clerical work for the certifying ophthalmologist, in connection with records, and obtain information required for ascertaining causes of blindness, etc.

Research.

Much remains to be discovered regarding the causation and prevention of blindness. This can best be organised by a central authority having the necessary facilities to direct and co-ordinate the work to be done throughout the country, *e.g.*, the Prevention of Blindness Committee, which has already issued a few reports based on information received from certifying ophthalmologists, and although its work has been curtailed by the war, no doubt this will be resumed in due course. The recent establishment of a chair of ophthalmology in London should also provide opportunities for the direction of research into conditions leading to blindness.

After the war, local investigations into some of the problems might be carried out by medical men having the necessary ophthalmic experience, and no doubt the Colston Research Society would be willing to help in providing the funds.

In order to stimulate the interest of senior students or newly qualified medical practitioners in the study of eye defects and diseases, it is strongly recommended that the Committee give a prize of £15 annually for an essay on a topical problem in ophthalmology. The subject might be selected by the Medical Board of the University, who might arrange for adjudication and the competition would be open to students or newly qualified practitioners within six months of qualifying.

July, 1943.

NOTE.—Both of the suggestions above have since been adopted.

Appendix III.

SANITARY CIRCUMSTANCES, HOUSING AND INSPECTION OF FOOD

By Mr. F. J. REDSTONE, Chief Sanitary Inspector.

Office Administration.

The very depleted staff of sanitary inspectors and the serious difficulty in obtaining replacements of fully qualified men made it essential that immediate consideration be given to the ways and means of best using the services of those remaining. To this end a reorganisation of the clerical staff was carried out in order to ensure that as much clerical work as possible would be taken off the inspectors, thus leaving them more time for actual field work.. This was achieved by the appointment of group clerks, who are responsible for all the clerical work of a team of inspectors. It was found necessary also to considerably augment the system obtaining in the department for the keeping of records of each particular case dealt with, and at the present time progress cards are prepared and maintained, giving the up-to-date position with regard to every complaint or other matter for which the department is responsible under the many acts, orders and regulations. An indication of the improvement made by the release of inspectors from clerical work is the fact that the number of visits made in one month are more than double the figures of those made in the corresponding month of the previous year when the new system was not in operation, and the clerical staff have doubled the number of notices served in a similar period.

The 3,835 complaints made to the department in connection with environmental health conditions were fully investigated, and in spite of the shortage of inspectors a great deal of useful work was carried out in various directions, as will be seen from the following particulars relating to some of the matters dealt with.

Disinfection and Disinfestation.

The work carried out by the disinfecting station staff was extensive, and considerable progress was made during the year in dealing with the various pests found in domestic and industrial buildings. Examples of cases dealt with in addition to the usual routine infestations were beetle infestation of roof timbers at a swimming bath; treatment of sheep-skin coats infested with maggots, and stored clothing and blankets infested with moths (2,000 articles). The use of Lethane, popularised by Bristol, has been extended during the year, and due to the shortage of insect powders, a " lethaned sawdust " was prepared as a substitute. This material gives excellent results and has been added to our list of mixtures for use in the attack against pests of various kinds. Inspectors and health visitors attended lectures and demonstrations on domestic entomology held at the University of Bristol, and were thus able to add to their knowledge of pest control. Visits were made to the city by officials from various local authorities to view spraying equipment and other materials used by the Bristol health department.

Reference to pest control would be incomplete without acknowledgment to the great help rendered by Dr. H. G. H. Kearns, research entomologist, University of Bristol, to whom we owe a great deal for the success already obtained in dealing with this important phase of public health work.

Hairdressers' Shops.

Attention having been called to the condition of certain hairdressers' shops in the city, efforts were made to stress the vital necessity of strict cleanliness in all such establishments. This matter was given considerable publicity through the local press and articles appeared in the trade journals throughout the country. A meeting was arranged by the Bristol and district branch of the National Hairdressers' Federation, at which Dr. K. E. Cooper, senior bacteriologist, Bristol University, and the chief sanitary inspector addressed a large number of national and local representatives of the trade. It is clear that no power exists in this city to deal with the hygiene of such premises other than the provisions of the Public Health Act, 1936, which allows of action being taken only when premises are in such a condition as to be a nuisance. At an appropriate time the position would be met much more satisfactorily by the adoption of byelaws to deal specifically with this class of premises. Shortage of inspectors has prevented a full survey being made, but visits have been carried out when special attention has been drawn to particular premises.

Smoke Abatement.

War conditions "set back the clock" of environmental health matters in many ways, none of which caused greater dismay to those interested in public health than the request to local authorities in certain areas to arrange with industrial and non-industrial undertakings to increase the amount of smoke emitted from coal and oil burning furnaces in order to afford protection to industrial targets against enemy action from the air. As a result, since 1940 many people have been long suffering in their toleration of the soot and grit which descended upon them. It was indeed pleasing for local authorities to hear during the latter part of 1943 that this request was withdrawn, and therefore the year under review has seen a stirring of activity in this particular field, although labour difficulties and poor fuel supplies have presented almost insurmountable difficulties in some cases. Co-operation and advice from the department, however, overcame certain grit nuisances of a serious character, and as the year ended, arrangements were being made to re-open the work of the Bristol and District Regional Smoke Abatement Council.

Filthy and Verminous Homes.

There has always been a number of people with indolent and filthy habits, but war conditions have accentuated this problem. The vast majority of homes in Bristol are well-run and kept in a clean condition by housewives who are often found to be doing two jobs. Great credit is due to such people, who have been let down by the very few who are grossly incompetent in the carrying out of essential domestic duties. Serious cases of child neglect have been found running parallel with unsatisfactory home conditions, and all such cases coming to the knowledge of the department were referred to the proper authorities.

Many aged and infirm people, especially those living alone, fall into a condition of self-neglect, becoming chronically dirty and verminous in their persons and dwellings. All these unsatisfactory conditions were dealt with under the powers of the Public Health Act. It was necessary to invoke the aid of section 62, Bristol Corporation Act, 1930, to secure compulsory removal of aged and infirm persons to an institution in a few cases.

Rubbish Deposits.

Many complaints were received regarding the condition of bombed sites, and in spite of labour difficulties, when representations were made to the city engineer's department these nuisance sites were completely cleared. In addition, many instances were investigated in connection with rubbish of all kinds deposited on cleared sites by the occupants of industrial and domestic premises in various areas of the city. A report was made on this widespread habit and the Health Committee decided that application should be made to the Ministry of Health for consent to make byelaws to deal with the matter.

Nuisance from Pigeons.

Complaints were received in connection with nuisance caused by pigeons fouling buildings and public pavements. These birds do damage by pecking at the joints to brick and stone work, which may give rise to danger to pedestrians. There has been a great increase in this pest during the war years because, apart from food picked up on bombed sites, they have been fed by kind-hearted people in the city who, no doubt, are unaware of the fact that the city engineer's department have to undertake destructive measures to keep them within bounds.

Location of Offensive Trades.

Discussions which took place between the health and town planning departments resulted in a scheme for the more satisfactory location of offensive trades premises. Whilst every effort will be made to prevent the occurrence of nuisances at existing premises where these necessary processes are carried on, it is indeed a step in the right direction that post-war siting has been discussed as a long term policy.

Cleansing of Central Markets.

A report was called for as to the condition and frequency of cleansing the central fish, fruit and vegetable markets. These old-fashioned premises suffered badly as a result of enemy action and difficulty is being experienced in maintaining hygienic standards pending the provision of more suitably constructed and sited premises. The chief sanitary inspector made a full inspection of the markets accompanied by the market superintendent, and close attention was paid to general cleansing, condition of sanitary conveniences and frequency of refuse removal. In addition, the city engineer's cleansing department was contacted regarding the sweeping of adjoining highways, and traders were requested to assist in this matter by the proper disposal of refuse.

Institutions.

At the request of the medical officer of health, the district inspectors made routine visits to all hospitals, clinics and institutions under the control of the Bristol Corporation. Close contact was maintained with the officers in charge of these institutions so that immediate attention could be given to any cockroach, fly, rat infestation, or other similar matter likely to affect the health of the inmates and staff.

Storage and Collection of Refuse.

Attention was given to the methods adopted at Ham Green, Southmead, Frenchay and Snowdon Road Hospitals with regard to the arrangements for disposal of edible wastes and other refuse. The medical officer of health instituted a method similar to that used by the American Army hospitals, which was the provision of a suitable platform upon which all the bins could stand whilst awaiting collection. A reinforced concrete stand on a concrete base was, therefore, provided, with proper fall for drainage. After some difficulty, 200 galvanised bins were obtained for the use of the above hospitals and were suitably marked indicating the particular waste for which each bin was provided. This method considerably improved storage conditions and helped to prevent fly nuisance. Additional work was carried out at Ham Green and Southmead Hospitals in connection with the disposal of ash refuse and pig food respectively. In every instance an effort was made to separate the edible waste from the domestic refuse, and special provisions were made for the disposal of soiled bandages and dressings. It has been found that the bins are being kept in a much better condition and their life appears to be much longer when they are not stood directly on the ground.

Transmission of Animal Ringworm.

Some cases of ringworm, on being diagnosed as of animal origin, were traced to cats owned by neighbours of the persons affected. The cats which were found to be badly infected were destroyed, and no further cases occurred from this source.

Collaboration in Connection with Post-War Planning.

The war period has seen intimate collaboration between the various Corporation departments. It is pleasing to record that a link up of all matters affecting environmental health is well to the fore, and that frequent consultations have taken place in relation to the many health aspects of post-war planning. One instance of this co-operation was the attendance of the chief sanitary inspector at a planning appeal in connection with the establishment of a factory bakehouse in a residential area, and further collaboration secured the removal of a lime-stone crushing works which was creating an intolerable nuisance. This team work is of real value in preventing the establishment of nuisances and is a great improvement on procedure allowing undisciplined development, which may in due course call for strenuous effort on the part of the health department to secure abatement of nuisances.

Housing.

Since the outbreak of war repairs to dwelling houses have been confined to action under the Public Health Acts, and whilst considerably difficulty has been experienced owing to shortage of labour and material, repairs of an urgent character have generally been satisfactorily completed. It is impossible under present circumstances to bring about improvements in housing conditions by the use of the repair and other sections of the Housing Act, but action has been taken in all cases where properties have become dangerous to occupants or are in such a state as to be completely unfit for human habitation. When demolition orders have been under consideration some owners have offered to carry out repairs of a character which would ensure tolerable conditions for a further short period, and where possible these offers have been accepted. Three certificates were issued under the Increase of Rent and Mortgage Interest (Restrictions) Act, in respect of dwelling houses which were not in all respects reasonably fit for human habitation.

The health department collaborated fully with other departments in the preparation of post-war reconstruction schemes. In this connection, and in order that up-to-date information shall be available, a housing survey was commenced during the latter part of the year. Shortage of inspectors compels that this survey be carried out on a limited scale, but as requested by the town planning officer, the central area of the city is receiving prior attention. It is considered that the opinions expressed as a result of this investigation will be found of value from many points of view.

Pathetic appeals for support in obtaining other accommodation have been received and where justified, strong recommendations on health grounds have been made to the housing manager. Even so, many occupants in dire need have had to remain in unsatisfactory premises. For that reason the various proposals in connection with temporary houses have been considered and welcomed in view of the urgent need which has arisen. Ministry of Health representatives attended a combined meeting of the Health and Housing Committees called to discuss the serious housing situation in the city. Those present were assured that the matter was receiving the urgent attention of the government departments concerned.

Temporary Dwellings.

Many complaints were received regarding the occupation of land by persons living in tents, vans and sheds. Encampments mostly peopled by gypsies, who often violate every public health law, were dealt with in the Bedminster, Stapleton and Horfield districts. In accordance with the policy of the Committee the necessary action was taken to secure the vacation of the land in every case. There are some who link romantic associations with these encampments, but the strong line taken by the Health Committee to prevent the establishment of such colonies has been fully justified by conditions found, which should not be tolerated within the city boundary.

Meat Inspection.

The inspection of meat received careful attention throughout the year and all animals slaughtered for human consumption at the public abattoir, Hotwells lairs, bacon factories and the various institutions, were inspected. A total of 140,419 carcases were dealt with in this way, and as a result, over 350 tons of meat were condemned as unfit for human consumption. Some indication of the increase in slaughtering will be gauged when it is stated that at the public abattoir alone the total of animals slaughtered was three times that of 1938. This additional work has made great demands on accommodation, maintenance and cleaning facilities. Due to insufficient lairage, the work at this abattoir had been seriously handicapped for some time, but towards the close of the year an improvement was effected by the extension of the temporary lairage and the construction of an additional fodder store.

Provision of Calf Pump.

The inflation of calf carcases with air drawn from the slaughterhouse floor and passed through a necessarily oily hand pump had been considered unsatisfactory for some time. Early in the year the Health Committee decided on hygienic grounds that an electrical air compressor should be installed, and this machine, complete with air cleaners, was put into operation during May. It has already proved of considerable value from many points of view.

Condemned Offal Removal.

A period of acute difficulty was experienced during October as a result of a breakdown in the firm's plant who normally remove this inedible and condemned material. The removal duties were then undertaken by another firm who lacked adequate facilities, with the result that a large quantity of material accumulated. This created a serious nuisance, and an order was obtained for it to be removed and destroyed by the city engineer. Metal containers were then provided by the firm concerned, and since that time no further removal difficulty has been experienced. The temporary storage of condemned offal at the abattoir is a vexed question, as adequate accommodation for this material was not included in the original plans. This is a matter which, with others, it is hoped to solve at an appropriate time.

Wholesale Meat Markets.

At the request of the Health Committee an investigation was made into the conditions at the wholesale meat markets. It was found that considerable difficulty was being experienced in maintaining the necessary overalls and other similar clothing, and the Board of Trade proved helpful in giving information regarding the supply of patching material and rubber aprons. The chairman of the various meat groups made arrangements for rubber aprons to be provided for the use of meat handlers at the depots, and these aprons have prevented the washable clothing from being unduly soiled. Representations were also made to the Ministry of Works regarding repairs necessary at certain meat depots, and generally it was found that meat traders responded well to the request for improved conditions in spite of the numerous difficulties with which this particular trade is confronted.

Considerable thought has been given to post-war planning in connection with grouping of meat facilities in the city, and many meetings have been held with the town planning department. The resulting reports made and approved will, it is hoped, lead to the formation and general extension of a meat grouping scheme which will allow of all the various activities being sited in a properly planned and convenient centre.

Food Inspection.

Milk and Dairies.

New legislation will, in the near future, place the supervision of cow shed premises under the control of the Board of Agriculture, but this possibility did not affect the keenness of the inspectors in obtaining necessary improvements to farm buildings, including dairies. In fact, there were ten farms involved in quite considerable reconstruction and improvement. In the last twelve months, despite labour difficulties and shortage of material, a number of dairies were considerably altered and provided with very necessary but expensive plant. Steady progress has also been made in reconditioning the storage and equipment of all the dairies registered and a reasonable standard of hygiene was maintained throughout the dairy trade. Applications were received for the installation of six additional pasteurising plants which, when provided, will bring the total of pasteurising plants operating in the city up to sixteen, thus ensuring that an increasing amount of safe milk is available to the public.

Milkless Day.

Since the introduction of the " milkless day " in Bristol complaints are received in the warm weather of each year that this arrangement causes considerable inconvenience to priority class milk consumers, and from time to time the Health Committee made representations to the various authorities concerned with very little result. On the advice of the medical officer of health, the Health Committee drew the attention of the Bristol members of Parliament to the position. This was followed by a visit to Bristol by the deputy director of the milk division of the Ministry of Food, who held a conference at the Council House at which the town clerk, the medical officer of health, and the chief inspector attended. After discussion at this meeting and at a meeting with the Dairymen's Wartime Association, it was finally arranged that milk would be made available on the " milkless day " to priority customers. This was done by sending roundsmen out with supplies for customers to collect from the delivery vans at points near their homes at specified times. The problem of milk delivery is bound up with labour difficulties and the rationing scheme, but it is hoped that as soon as more labour becomes available the " milkless day " will disappear.

Sampling of Milk.

When sampling milk for biological examination to detect tuberculosis, the sample is divided into two by the milk inspector so that a part may also be examined to ascertain its chemical composition. This practice revealed that two farmers were sending milk which was adulterated with water to a large dairy in the city. In the past, such a result would have been followed by a formal sample being taken which, if adulterated, would have resulted in a prosecution by your officers. At the present time, as the terms of the contract existing between the farmers and the Milk Marketing Board precluded this department from taking official samples at the place of delivery, the adjoining authority was informed of the position and we were subsequently notified that the farmers concerned were fined a total of £30 and £70 respectively. In all, there were some twenty similar cases referred to responsible authorities, and it is pleasing that such excellent co-operation exists between all the departments concerned.

Elimination of Tuberculosis in Dairy Herds.

The elimination of tubercular cows by means of the biological testing of milk is of necessity a slow procedure. In the opinion of the veterinary profession the only satisfactory solution of this vital public health problem is by the application of the tuberculin test to all the dairy cattle in the country. Unfortunately, this is not possible at the present time. An effort to assist in the more rapid elimination of bovine tuberculosis was made in July, when the department started a system whereby all calves slaughtered in the city and found on examination to be affected with tuberculosis were traced back to the farms from where they originated. The full details were sent to the divisional veterinary officer of the Ministry of Agriculture and Fisheries of the area concerned for investigation of the herds involved. Twenty-three cases were notified in this manner, with the result that 10 tubercular cows were found and slaughtered under the Tuberculosis Order. In six months under this scheme more tubercular cows were found and eliminated than in 12 months by the biological testing of milk.

The department is indebted to the divisional veterinary officers and county sanitary inspectors for their invaluable help and co-operation in the successful operation of this system.

Food Samples, Poisons, Fertilisers and Feeding Stuffs.

It was necessary to take legal proceedings in four cases arising out of the many and varied samples of food submitted to analysis for adulteration, deficiency or other contravention of the Food and Drugs Act, 1938. Five other cases regarding contraventions of statutory rules and orders were referred to the Ministry of Food. Infringements in respect of articles improperly stored, or being sold without a licence, were found on visits to premises selling substances classed as Part II poisons and in 41 cases the people concerned were cautioned by the town clerk. Of the ten butter factories in the city, only six were in operation, and samples taken from these premises proved to be satisfactory. Three samples of animal feeding stuffs did not comply with the statutory statements furnished and appropriate action was taken in each case.

School Meals.

The new education scheme envisages the provision of meals at schools on a large scale, and this development will involve careful supervision. The advice of the food inspector has been sought on many occasions in connection with school canteens, but it would be more satisfactory if, when opening school kitchens in the future, notice could be given to the health department so that the facilities for food storage, sterilisation equipment and arrangements generally could be inspected, and any alterations or additions necessary completed before the kitchen began to operate.

Inspection of Food Premises.

Adequate supervision of these premises is essential and every endeavour has been made to deal with this matter, but shortage of staff makes efficient supervision extremely difficult and much remains to be done to ensure that hygienic conditions are established and maintained as required by public health law.

Dehydration of Foodstuffs.

War conditions have caused many developments which will no doubt have considerable use in days of peace. One notable instance was the establishment of a plant for the dehydration of vegetables for supply to the military authorities and liberated countries. The great saving of shipping space—for example, five tons of potatoes are reduced to one ton in the dried product—and the ease of preparation of such foodstuffs has already proved of enormous value.

Tyroglyphid Mites in Flour Mixtures.

A number of complaints with regard to the condition of flour mixtures were found to be due to infestation of this food by wheat mite and in one instance a consignment of over 300 cases, representing £500 worth of food, was involved.

The department of scientific and industrial research have published a survey of information available regarding tyroglyphid mites in stored products, and it is reported that these microscopic crablike creatures have been known to cause disturbances of the skin, eyes, stomach, intestines and respiratory system in human beings and animals. In stored food products, moisture content of the material plays a dominant role, and there is no doubt that gradual deterioration of materials kept in storage for long periods accounts, with other factors, for increase in damage. The main principles for prevention of mite infestation have been well established. Materials should be stored as dry as possible in dry, weatherproof stores; it is usually advisable to make provision for good ventilation to guard against local accumulations of moisture; insects, rodents and birds, which distribute mites, should be excluded as completely as possible; general hygienic measures, such as the regular removal of dust and debris, should be carried out, and infested materials should be isolated and destroyed or treated so as to prevent the spreading of mites to other materials.

The manufacturers of all such products condemned in this city were informed, in addition to the medical officer of health in whose area the packer's factory was situated. The Ministry of Food salvage and infestation branches were also consulted with a view to wider enquiries being made. The assistance of the public analyst in dealing with this matter was invaluable, and it is worthy of note that an article by the medical officer of health caused considerable interest when published in the "Lancet" medical journal, p. 263, 19th Feb., 1944.

Ropey Bread.

Complaints regarding the condition of bread were ascertained to be due to "rope," which is caused by a type of micro-organism known to biologists as "bacillus mesentericus" or "slime forming bacteria." Warmth and a low degree of acidity are necessary for its development. Practically all flours are liable to contain spores of the "rope" organism, which will only develop in bread under certain conditions such as thundery weather, high humidity and high temperature. The bread referred to was supplied by one baker, and replacements were made to all who had complained. His premises were thoroughly cleansed, all utensils washed with acetic acid solution and other necessary measures taken which prevented a recurrence of the trouble.

Business Premises—Public Health Requirements.

Under the Location of Retail Business Order, 1942, application for the establishment of new businesses has to be made to the Board of Trade who, in turn, notify the health department of the applications received. In this way the department is enabled to draw applicants' attention to the statutory provisions with regard to business premises under the Shops Act, 1934, Public Health Act, 1936, and Food and Drugs Act, 1938. Thus, every person about to start a new business is made aware of his responsibilities in connection with public health law, and in addition, close co-operation with the Ministry of Food ensures that advice is available on applications they receive for the establishment of various food premises.

Rat Destruction.

Instruction in Rat Repression.

The City's rat infestation problems have been greatly aggravated by damage to sewers caused by enemy action. At all times a serious matter, the loss of food in wartime due to the activities of rats assumes an even more serious aspect. It was felt that one of the best methods of assisting the occupiers of food and other premises to combat this menace would be to train a number of the firms' staff in the most efficient and effective means of exterminating rats and mice. A programme of training was drawn up and a series of lectures arranged free of charge, to which firms' representatives were invited to attend. These lectures and demonstrations were given at the Merchant Venturers' Technical College and included the use of films illustrating up-to-date methods of rat destruction. The lectures were attended by representatives of 70 wholesale food firms and other traders. The department is indebted to the Merchant Venturers' Technical College for the use of the lecture theatre, film projector and operator, free of cost. There is no doubt that these lectures created quite helpful enthusiasm. The Ministry of Food were keenly interested in this scheme, and intimated that they hoped to get other large authorities to carry out a similar programme.

Further interest was aroused in the city and surrounding area by a meeting at the Grand Hotel, Friday, 5th May, when members and officers of local authorities in this area and large food traders of the city heard an address given by Mr. McAuley Gracie, director of infestation control, Ministry of Food, under the joint chairmanship of the Lord Mayor and the chairman of the Health Committee. Mr. McAuley Gracie informed those present at this meeting that the Ministry of Food had inaugurated a national campaign for the destruction of rats and mice and that he was anxious that the co-operative arrangements between the local authority and occupiers of premises in this city should be extended to other areas in the Western Region. Subsequent to this meeting a rodent exhibition was held at the Art Gallery, Queens Road, Bristol, and an officer of this department was in attendance with officers from the Ministry of Food to answer questions and demonstrate the damage rats are capable of causing, both to foodstuffs and property.

Contracts.

It has been the practice during the past four years for the department to arrange disinfestation services to be carried out under contract with a number of firms possessing large business premises in the city. During the year under review it was considered that the time had arrived when such contracts should cease and the occupiers of these premises be called upon to make their own arrangements for the repression of rats and mice, as laid down in the Rats and Mice Destruction Act, 1919, and as the contracts came to the end of their term they have been accordingly discontinued.

St. Philip's Marsh Area.

The St. Philip's Marsh area is more heavily infested with rats than any other part of the city. This is understood when it is realised that situated in that area are premises carrying on offensive trades, tips, railway embankments and rivers, which provide conditions suitable for extensive infestation. Control measures are in continuous operation, and include gassing and poisoning methods carried out under the supervision of the rat officer. The offensive trades were visited regularly and assisted with their efforts to exterminate rats, whilst communication with the railway company resulted in their carrying out a more intensive treatment of the railway banks. It is not suggested that the rat infestation in this area has been brought down to a satisfactory level, but full effort will be continued and, linked with the scheme for general rat destruction throughout the sewers, a more satisfactory position should be achieved.

Baiting of Sewers.

In collaboration with the city engineer, a scheme was drawn up for the treatment of the city sewers, for which the Ministry of Food provided, free of charge, trays, ropes and baiting apparatus, and undertook to pay the cost of bait and poison. The Ministry also agreed to pay half the cost of all extra labour employed in the operation of this scheme. A pilot test was carried out in the northern district of the city, and in accordance with the information obtained, a complete survey of the city sewers was made. Of the 5,691 manholes requiring baiting, it was necessary to provide 900 with special trays supplied by the Ministry of Food, each having a rope attached which reached to the level of the sewage flow, thus giving the rat access to the bait. That these trays were successful was proved by the fact that rats were seen eating the bait on the tray when manhole covers were lifted.

All the work of preparation, baiting, treatment and recording has been carried out in accordance with recommendations made by the infestation branch of the Ministry of Food, and during this drive it is interesting to note that more than 6½ tons of bait have been used with over 16 cwt. of barium carbonate and arsenious oxide rat poisons. The number of rats exterminated under this drive is problematical for various reasons, but, basing the number of rats killed on the formula set out by the Ministry of Food, it is estimated that at least 92,000 rats have been destroyed since August, 1944. Whilst these results have been accomplished only by the full co-operative action of various departments, the bulk of the work has fallen on the city engineer, his district surveyors and baiting gangs, to whom great credit is due for the enthusiastic way in which this really valuable public health measure has so far been tackled.

The department readily agreed with the Ministry of Food's suggestion that local authorities in the western area be invited to visit Bristol to see the work of sewer baiting in progress. All the necessary arrangements for the visit of representatives from twelve local authorities were made by the town clerk, and a letter of appreciation and thanks was received from the Ministry of Food for the courtesy extended to our neighbouring authorities in this matter. The adjoining authorities of Sodbury, Long Ashton and Bathavon have co-operated with the Bristol drive by synchronising the baiting of their sewers, thus ensuring that each drainage area has been completely covered.

In spite of our previous efforts, rat infestations attained serious proportions—in fact, we have received 1,819 complaints this year; a further indication of the extensive breeding and spread of rats is evidenced by the fact that the sewer survey revealed infestation of sewers previously known to be clear. It was felt after consideration of the final results that it would be necessary to apply a third treatment to the sewers on the lines laid down by the Ministry of Food. Approval of this Ministry has been obtained, so that a third treatment of the Bristol sewers will be undertaken on a similar basis with regard to cost and methods adopted as the two previous treatments.

The rat officer and his co-workers have worked hard and well in their efforts to tackle these filthy and destructive creatures which always menace the public health.

Training of Student Sanitary Inspectors.

The publicity given to the fact that there were vacancies in the department for sanitary inspectors has resulted in a large number of applications being received from people who had no idea as to the work entailed or what qualifications were necessary before appointment was possible. It does appear desirable to bring before the public the possibilities of a career as a sanitary inspector and the methods by which this can be achieved. At the present time, after a lapse of five years, there is a course of lectures and demonstrations being given by officers of the department at the Merchant Venturers' Technical College, at which students with the requisite preliminary education (matriculation standard or City and Guilds first class certificates) may prepare for the sanitary inspectors' certificate of the Royal Sanitary Institute and sanitary inspectors' Examination Joint Board. In addition to such a course of approved lectures it is necessary for the students to complete a course of practical training in a public health department. It may be of interest to local parents with sons who wish to enter the service to know that, on application, they can receive full information as to how best they may plan their sons' education so that they may be fully prepared in all the subjects on which they will be examined later.

The Sanitary Inspectors' Association has prepared a post-war training scheme for members of H.M. Forces, which has been approved by the Ministry of Health and the Board of Education. It is understood that Bristol may well be one of the centres at which this scheme will be put into practice.

Inspectorial Conference.

An innovation which has proved most successful is the meeting held each month at which the inspectors discuss matters affecting the policy of the department, difficulties met with in practice, and new legislation which appears from time to time. Discussions are opened by each inspector in turn, who prepares notes on a particular section of public health work. This interchange of knowledge and opinions has been much appreciated by the staff and has fostered a pronounced feeling of *esprit de corps* in a very enthusiastic team of inspectors.

City Water Supply.

The water supply of the city during the year was satisfactory in quality and quantity. The whole of the population in the Bristol area are supplied by public water mains direct to houses with the exception of a very few isolated premises in the semi-rural suburbs, where the supply is from private wells and subject to a form of chlorination. Negotiations are in progress in connection with the majority of these isolated premises for a mains supply to be laid on. Raw water is examined bacteriologically before treatment by Bristol Waterworks Company and after treatment has been found satisfactory. A table showing the results of bacteriological examination of waters carried out by the Department of Preventive Medicine will be found on page .... The public analyst has furnished the following report on the water supplies of the area:—

" Analysis of the water supply of the city was carried out regularly, the intervals between analyses being not greater than one week, and the supply was found satisfactory in all respects. The water is not liable to plumbo-solvency and contamination of the supply by lead is very slight. The most recent examination disclosed the presence of .012 parts of lead per million.

Water supplies from lakes, springs and wells were also examined and an analysis was made of the water pumped from the Severn Tunnel. Frequent analyses of the water supplied to Babies' Home at Downend and Frenchay (West Gloucester supply) and to Ham Green Hospital (Portishead supply) were also made. The control of the softening plant for the Ham Green lake water and analyses of the treated and chlorinated supply were carried out throughout the year."

Appendix IV.

THE WORK OF THE PREVENTIVE MEDICINE LABORATORIES DURING THE WAR YEARS 1939—1945

By Dr. K. E. COOPER
with Notes on the Clinical Pathology Services by
Dr. DOROTHY WOODMAN

Introduction.

In the years before the war the Preventive Medicine Department of Bristol University was responsible for the provision of a laboratory service in bacteriology, pathology and bio-chemistry for the municipal hospitals, institutions and clinics. In 1938 the staff consisted of six qualified members and eleven technical and clerical assistants. The laboratory served also the general practitioners in the City of Bristol, and, to some extent, in the neighbouring parts of Gloucester and Somerset. The war not only increased routine work in all sections, but also placed upon the laboratory many new duties.

On the 1st July, 1940, the department became an associated laboratory of the emergency public health laboratory service, and has functioned through the war years not only as a city and university laboratory, but, to a large extent, as a regional laboratory for the south-west region. As will be seen later in this report, the added responsibilities and the amount of work done have steadily increased. This has only been possible because the city of Bristol have allowed us to increase our staff (in 1945 there were nine qualified and 32 assistant members of staff); and the University have provided increased accommodation by equipping five additional rooms as laboratories. Increased accommodation has also been provided by the city at Southmead and Ham Green Hospitals. By these means the laboratory has always been able to take on the additional routine work which has been requested.

Research work has naturally to be limited to the immediate problems with which the laboratory service was faced, but the department has had to accept the responsibility of teaching bacteriology to both medical and science students during this period.

1.—Additional Duties Performed During the War.

In association with the emergency public health laboratory service:—

(a) Contact with the central emergency public health laboratory was particularly important in obtaining information, priority supplies, diagnostic and therapeutic reagents.

(b) Bacteriological specimens from outbreaks of infectious disease in the area were regularly submitted to central laboratories for detailed investigation.

(c) The laboratory participated in a number of special researches organised by the Medical Research Council:—
  i. Susceptibility of pneumococcal strains to sulphonamides;
  ii. Influence of cubical wards on the transfer of streptococcal infections;
  iii. The effect of immunisation against whooping cough, typhus and diphtheria.
  iv. Hæmoglobin survey.

(d) The laboratory examined all materials suspected to have been dropped by enemy aircraft for possible disease producing organisms, which were submitted to it by the A.R.P. or police authorities. Duplicate specimens were forwarded to London.

(e) Routine laboratory facilities were provided for all service personnel where service laboratories were not yet in action; in the early years of the war mainly British, and, in the later years, American forces were served.

(f) Regional conferences of the emergency public health laboratory service were held at suitable centres in rotation in the region from 1942 onwards. Bristol had the privilege of holding these meetings in 1942 and 1944. Demonstrations on the work of the laboratory and discussions on laboratory matters proved a very valuable help towards the standardisation and accuracy of routine results as well as providing the most recent information concerning important advances in knowledge.

2.—Special Work for the City of Bristol.

(a) Arrangements were made for the routine control of water, milk and food supplies that were damaged by enemy action.

(b) Special investigations on the means of the spread of infectious disease under war conditions were carried out, *e.g.*, ventilation of air-raid shelters; effect of over-crowded hospitals, homes, institutions, canteens and factories; conditions under which foodstuffs may act as vehicles for the distribution of infection; the importance of clothing and fomites in the dispersal of infection; the organisation of efficient methods and provision of rapid laboratory help for the detection of contamination of diseased meat and unsound canned produce, and the salvage of all utilizable material; the special chlorination of highly polluted water supplies for emergency drinking purposes.

(c) Duplicate accommodation and apparatus was arranged at a shadow laboratory in case of damage to our own building. Emergency laboratories in association with the city analyst were arranged in the different districts of Bristol to function for emergency examinations if transport and communications were disrupted under invasion conditions.

(d) By the kind association of a number of individual firms and the city analyst's organisation of gas identification officers, a short training course in emergency bacteriological examinations was given to available personnel. The organisation took part in the A.R.P. exercises prior to the threat of invasion, though fortunately it never had to act under invasion conditions.

(e) Special personnel were immunised against various diseases, *e.g.*, emergency typhus teams were organised to deal with any case of typhus that might occur. Persons going to the Continent were immunised against typhus, typhoid and tetanus.

(f) The department acted as a distributing centre for penicillin supplies when they were released for civilian use. In the early months the department undertook the dispensing and the sterilising of apparatus and vehicles used in the municipal hospitals, and as the service increased the department arranged for the decentralisation of the dispensing to the individual hospitals concerned.

3.—Work for the Region.

(a) Provisional arrangements were made for the laboratory to function as a regional headquarters for infectious disease notification and control if regional government was introduced in the case of invasion.

(b) Prophylactic and therapeutic reagents required by public health authorities and hospitals in the south-west region were distributed by the laboratory, *e.g.*, gas gangrene antitoxin, tetanus antitoxin, botulinus antitoxin, diphtheria and typhoid prophylactics.

(c) The laboratory provided facilities necessary to deal with the examinations required in any outbreak of infectious disease in the neighbourhood surrounding Bristol. It acted in a consultative capacity for many public health problems.

4.—Work for the University.

(a) A yearly course in bacteriology as a subsidiary B.Sc. subject was maintained throughout the war with increasing numbers of students.

(b) Such was the shortage of bacteriologists that most students taking this course proceeded to bacteriological posts, two of these students became members of our own staff in order to replace vacancies caused by the transfer of members of our staff to Cambridge and Edinburgh Universities.

(c) The department undertook the teaching of bacteriology to medical students in the Department of Pathology.

(d) Research work was naturally restricted to the problems involved in the general work of the department. A list of publications is given at the end of this report.

5.—The Laboratory Routine Work.

How far do figures for the number of examinations made in the laboratory reflect the incidence of specific diseases in the community ? It is true to say that an increased incidence of a disease requiring a laboratory examination is reflected in an increased number of examinations. This has happened in the case of examinations for syphilis, gonorrhœa and tuberculosis with increases of 225 per cent., 260 per cent. and 170 per cent. in 1944 on the 1938 figure, the increase being one of steadily rising incidence in the intervening years. The enteric diseases typhoid and paratyphoid show fluctuations in accordance with the occurrence of epidemic outbreaks—2,600 examinations for paratyphoid in 1941, the year of a severe epidemic in Bristol, as against only 84 specimens in 1938. It is doubtful, however, if the increases in examinations for hæmolytic streptococci, and for dysentery, which have steadily risen from 1938—1944 by 400 per cent. and 475 per cent. can be similarly explained by increased incidence. The more common recognition by doctors of the nature of these diseases has gradually developed in response to more accurate and improved laboratory technique for their detection. The use of chemotherapy against many specific bacterial infections has made it increasingly urgent for the doctor to know accurately the nature of the infection he is treating, and has accentuated the demand for this information from the laboratory.

On the other hand the greatly diminished incidence of diphtheria as a result of increasing immunisation of the populace, although it has reduced the number of examinations to a half of the pre-war level, does not seem able to produce any further reduction—some 10,000 swabs being received each year since 1941. The number of positives has continually fallen, but there is obviously no corresponding reduction in the other throat infections which may be mistaken for or suspected of being diphtheria.

The examinations of water, milk and foodstuffs have been maintained at a steady basic level, with the addition of extra examinations for special purposes (*e.g.*, emergency water supplies and examination after air raid damage).

A list of the number of specimens examined from a few selected examples is given to illustrate the main features, but it will be seen from the total numbers given at the foot of the columns that an equal number of other examinations have been omitted from the specific list. These other specimens, which are not given in detail, include the miscellaneous bio-chemical, pathological and bacteriological examinations. They are not a less important part of the work of the laboratory; indeed we would emphasise that the existence of a biochemical and pathological section of a laboratory which is mainly concerned with public health, has been indispensable, and one which we regard as essential even if all hospital pathology is transferred to hospital laboratories after the war. The correlation of pathological, biochemical and bacteriological findings is not only often necessary, but is often a matter of great urgency, for diagnoses on acute conditions. This can only be accomplished without undue delay in a department which provides a service in all three subsections.

Clinical Pathology Section.

This section has always been responsible for providing laboratory services in clinical pathology and biochemistry to the municipal hospitals, institutions and clinics. In addition it has also served the general practitioners, especially in respect of their panel patients. During the war this work has increased, as records will show, but only minor new duties fell on this section.

At the beginning of the war the staff consisted of two medicals, one qualified technician, and one other unqualified technician. During the war, owing to the additional demands for work, the staff has been increased to three medicals (though at the moment one of these is a doctor of science), one qualified technician, and nine unqualified technicians. This increase has been due mainly to the extension of the work at Southmead Hospital, and we have had to transfer some of our staff to full time work in the laboratory there.

Additional Duties Performed During the War.

(1) Distribution of antisera throughout the south-west region.

(2) Carrying out the blood grouping of volunteers before the army service was fully established.

(3) Research work on two problems organised by the M.R.C.:—
   (a) Susceptibility of pneumococcal strains to sulphonamides.
   (b) Hæmoglobin survey.

(4) Research work carried out in conjunction with Dr. Craig, of the maternity and child welfare service, on the degree of saturation of vitamin C in pregnant women during the war. The results of this work have been published.

(5) Penicillin distribution and testing.

(6) Work for the Forces.

The distribution of antitoxin involved extra work during the first eighteen months of war owing to the demand on the laboratory by first-aid posts in the city, and casualty trains at the time of the evacuation from Dunkirk, and the provision of stocks of sera to the various hospitals in the whole of the south-west. During the latter period of the war all these places were permitted to hold fairly large stocks if they had suitable accommodation, so that it was only necessary to dispatch occasional new supplies.

The investigation of the susceptibility of pneumococcal strains to sulphonamides was carried out in conjunction with Dr. Ormiston, who was sent down here by the Medical Research Council and lived at Ham Green for over a year studying the cases there. The specimens were examined at Canynge Hall for type of pneumococci present.

The hæmoglobin survey was carried out by Dr. Woodman and Dr. Lewis of this department, and Dr. Davis of the physiology department of the University, on various groups of men and women working under different conditions in the city and surrounding districts, and on school children in and around Bristol. This investigation formed part of one which was made over the whole country, and the results have been compiled in a monograph published by the Medical Research Council.

The introduction of penicillin has increased the work of this section, and, for a time, greatly so. The distribution of the drug was handed over to the pathologists in this department, and was dispensed mainly by the media technician. The actual instructions and tests for sensitivity of the organisms to the drug were dealt with by the medical staff. The drug was supplied to the municipal hospitals and to Burden Neurological Institute. It is now dispensed at the latter and at Southmead Hospital, so that the department at the moment is only responsible for dispensing the drug for Ham Green Hospital and private patients.

In addition, a certain amount of clinical pathology has been done for the forces where they had no laboratory of their own available. This was quite apart from the emergency public health scheme which dealt only with bacteriological problems.

Routine Work for the City.

SOUTHMEAD HOSPITAL. Great changes have taken place in the pathological services to the hospital during the war. In 1943 a small extension was made to the existing laboratory, so that more work could be done at the hospital itself. As a result there is now a medical assistant at the hospital every day and three full-time technicians. In 1938 the total number of specimens examined was 3,046; in 1944 the total number examined was 14,854, of these 10,494 were examined at the hospital itself and the remainder were special investigations carried out at Canynge Hall. An additional medical assistant was appointed to the staff at the beginning of 1944 to make provision for a more efficient service to the hospital.

HAM GREEN HOSPITAL. The work here varies, but has increased to some extent in that more demands for a visiting medical assistant have been made. Dr. Peters has been anxious for some time for more work to be done on the premiss, and so it was decided to provide a better laboratory than the present one, which is completely inadequate. A ward is now being converted into a suitable temporary laboratory and a technician has been appointed to work there every afternoon and in the mornings at Canynge Hall.

CLINICS. The clinics have gradually used the laboratory more during the war, and are now sending up patients frequently for hæmatological and biochemical examinations. During the last year a special clinic which is investigating problems of sterility has been started and the pathological work done for this clinic has been carried out by Dr. Woodman and Dr. Lewis.

MORTIMER HOUSE. The opening of this maternity hospital has led to requests for visits from one of the medical staff for hæmatological work. These visits, though not numerous, are made spasmodically as the work necessitates.

FOOD AND MILK. The tests concerned with the pasteurisation of milk which have always been done in this department have been of great importance during the war, as it was essential to see that the plants were working efficiently in spite of the difficulties of shortage of labour with which the milk distributors had to contend. The majority of these tests are carried out by this department only, and are not employed by laboratories elsewhere. Other laboratories rely on the phosphatase test alone, which we decided was not sufficient to indicate when a plant is breaking down. A paper in connection with this work and pointing out the importance of the other tests used here has been published—article "The laboratory control of pasteurised milk," by Cooper, Woodman and Nichols, see "The Medical Officer," April 3, 1943.

Lectures and Demonstrations.

The usual demonstrations to public health visitors, etc., have continued, but in addition a course was started in 1944 at the request of the Ministry of Health in bacteriological demonstrations with special reference to infections in wards. This is carried out twice a year by Dr. Woodman to the Southmead nursing staff. In addition, twelve members of the veterinary section of the American Army were shown sections of various animal preparations before they left for the Continent.

Conclusion.

The development of this section which has taken place during the war has come to stay, not necessarily due to the war but because the medical staff of the hospitals, etc., have begun to realise to what extent the pathological services may be of use to them in their clinical problems.

Examinations made in the Preventive Medicine Laboratory During the War Years (1939—45).*

	1938	1939	1940	1941	1942	1943	1944
BACTERIOLOGY:—							
Diphtheria Swabs ...	17,395	15,562	15,227	9,904	9,258	10,514	10,252
Hæmolytic Strep. Swabs ...	617	854	1,399	1,177	2,015	2,438	2,537
Tuberculosis, sputa ...	1,758	1,655	1,309	1,503	1,680	2,277	3,023
Enteric, fæces	84	107	384	2,662	393	463	290
Dysentery, fæces	482	212	450	1,994	1,156	3,113	2,289
Food poisoning, fæces ...	15	15	125	37	35	144	105
V.D. Syphilis, W.Rs. ...	3,008	2,474	2,232	2,405	4,147	6,115	6,709
Gonococcal smears...	5,421	6,337	5,318	5,331	7,420	10,719	14,248
Gonococcal cultures	848	222	652	80	288	887	1,939
Waters	237	200	297	401	302	137	109
Milks for T.B.	982	958	936	731	766	803	1,139
„ „ bact. Past. ...	389	384	439	352	448	305	421
„ accredited	597	617	508	352	361	218	334
Foods	64	41	213	119	80	82	37
CLINICAL PATHOLOGY:—							
Blood Counts, White and differential...	343	633	953	976	1,667	1,045	2,195
Blood Chemical	212	190	214	464	612	775	1,155
„ Sedimentation ...	118	64	119	38	139	291	479
Fractional Test Meal ...	514	928	775	940	1,602	1,753	5,727
Urines—general	510	540	695	1,006	1,567	1,540	2,341
Tissues—Histology ...	129	302	226	296	326	324	301
TOTAL SPECIMENS ...	25,623	38,600	39,000	39,100	45,602	59,567	75,800

→ Notable increases.

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* Excluding private specimens and specimens paid for by the counties of Gloucester and Somerset, as follows:—
3,944 3,804 3,642 4,935 6,039 7,336 8,495

Routine Control of Water, Milk and Foodstuffs.

WATER. In addition to the regular weekly examinations of the main water supplies delivered to the different areas of Bristol (by the Bristol Waterworks Company, the West Gloucestershire Water Company and the Portishead District Water Company), extensive arrangements were made for rapid analyses in the event of war damage. Ninety-six water mains were reported as damaged in the first air raid on Bristol on the 24th November, 1940. All interrupted services were reinstated by the Water Company before the second air raid occurred on December 2nd, and bacteriological analyses were made on all the affected breaks in pipes of 5 in. diameter or over. By means of extra chlorination and bacteriological control no epidemic disease attributable to water supplies occurred in Bristol during the war years. We would like to express our indebtedness to the Bristol Waterworks Company for their ready co-operation and to Mr. Hornby, the Company's bacteriologist and chemist, for his collaboration.

In view of the periodic interruption of the water supplies by heavy air raids, it became necessary to make emergency water supplies in Bristol as large as possible. Bacteriological analyses were therefore made of all the old wells in Bristol—approximately 200 wells. These were classified according to the degree of pollution, and arrangements were made with the A.R.P. authorities and the city analyst for adequate emergency chlorination controlled by air-raid wardens under the supervision of teams of chemists. The transport of water in water carts, the storage and chlorination tanks were also supervised. Particular care had to be taken regarding the provision of water for washing and operating of milk plants, as the danger of contamination of milk from polluted water was naturally great.

MILK. The increased difficulties of transport and distribution of milk, the calling-up of skilled personnel by the Services, all rendered more difficult the provision of a safe milk supply. These difficulties reached their peak in 1942. This danger could not be prevented by heat treating all milk in Bristol, as there was neither personnel nor plant to enable this to be done. The vast majority of the milk, however, was pasteurised, and an increasing amount was being subjected to some form of heat treatment, as we approached the end of the war. Heat treated milk which has failed the phosphatase test is unsafe, but by the time the test has been made in the laboratory most of the milk is distributed. We therefore regarded it as important to devise tests for the control of heat treatment plants which would indicate to the firm concerned that their process was inadequate before they had reached the actual danger point of a failing phosphatase.

Cream line tests (originally introduced into the laboratory by Professor Walker Hall), which fulfil these criteria have therefore been adopted in this laboratory in addition to the phosphatase test throughout the war years (see publication 15 at the end of this report). As a result of the measures adopted no epidemic of infectious disease has occurred in Bristol during the war years which was definitely proved to be associated with heat treated milk.

A few outbreaks of scarlet fever associated with raw milk were traced and stopped by the compulsory heat treatment of the milk supply concerned. The bulk of the milk in Bristol can thus be regarded as safe, but until transport, labour and plant difficulties are fully remedied, the keeping quality of the milk—particularly during the hot summer months—cannot be expected to reach a satisfactory level.

OTHER FOODSTUFFS. The reliance which has had to be placed on canned products, as these alone are capable of storage for long periods of time, has greatly increased the work of the laboratory, which has had to examine these products for sterility. The necessity wherever possible of diverting unsatisfactory material into some utilisable channel for salvage purposes has always been borne in mind. The transport of fresh cured and refrigerated foodstuffs has involved us in many new problems according to the greatly increased time expended in transport to this country. The addition of ill-trained labour in canteen, factory and workshop has increased the danger of infection at the central manufacturing depots and peripheral distributing centres. Both the serious outbreaks of paratyphoid were associated with the infection of artificial cream mixed by the hands of an infected person. The results of the considerable investigation which was made into these two outbreaks have both been published, and the reader is referred to publications 5, 8 and 9. A toxic food poisoning outbreak associated with organisms of the proteus group was also published—see publication 6.

The wisdom of the policy of accommodating the sanitary inspectors of the food and drug section of the health services in the laboratory has been well illustrated by increased efficiency of collaboration with the laboratory and the resultant success achieved in the control of epidemic disease and its vehicles of spreading.

7. Miscellaneous Investigations.

Articles Suspected of Having Been Dropped from Enemy Aircraft.

Powders, papers, and drugs of every description have been submitted for examination. Articles varying from the splashed tiles from roofs to a brown paper bag of T.N.T. were examined at the laboratory for dangerous bacteria, and also submitted to central laboratories for chemical examination, and examination for viruses as well as bacteria. Parts of aircraft, cobwebs, glass wool, bags of eosin dye, packets of chalk in waterproof wrapping, phials of ammonia, typhus vaccine, ethyl iodide, and neosalvarsan were among the interesting articles submitted. No examples of dangerous bacteria were found.

Teaching. In addition to the regular University teaching of science and medical students, the department has had to be concerned with the training of technicians and staff, as this was the only way in which our numbers could be expanded in a time of acute shortage of personnel. Short training courses have had to be provided for a number of individuals associated with the local authorities' emergency services, or hospitals. Nurses, midwives, health visitors, dispensers, sanitary inspectors, Service personnel involved in hospital hygiene or laboratory work have from time to time visited the laboratory.

Conclusion. It should be stated in conclusion that the development of the laboratory service which has taken place during the war has come to stay, although developed in response, in many instances, to special emergency work. The problems of the control of infectious disease amongst a moving populace in the modern world are largely to remain, and likely indeed to become larger than they have ever been before. The part that laboratory research, accurate diagnostic routine, and the provision of specialised methods of examination will have to play in a more fully developed medical service for the whole community will be fundamental. The laboratory stands as one of the most important connecting links between municipal, university and governmental organisations, and it is hoped that it will play its part in a more efficient and adequate way in the future than the limited facilities that have been given in the pre-war years have permitted it to do.

Departmental Publications During the War Years.

1. Reduction of Potassium Tellurite in Diphtheria and other Throat Conditions. Paper read on July 8th at Path. Soc. meeting. Cooper, Peters, Wiseman and Davies (1939). Lancet, July 29th, p. 248.
2. Chemotherapy in Fever Hospital Practice. Peters, Woodman and Lewis (1939). Med. Officer, August 5th.
3. Verrucæ in School Children. Cooper. Report to Health Committee, 1940, January.
4. Laboratory Diagnosis of Diphtheria. Cooper, Happold, Johnstone, McLeod, Woodcock and Zinnemann (1940). Lancet, May 11th, p. 865.
5. An Outbreak of Paratyphoid B in Bristol. Davies, Cooper, Wiseman and Davies (1940). Lancet, December 21st, p. 778.
6. An Investigation of an Outbreak of Food Poisoning associated with Organisms of the Proteus Group. Cooper, Davies, and Wiseman (1941). J. Path. & Bact. LII, No. 1, 91.
7. Spread of Streptococcal Infections in Cubical Wards. Peters, Cooper and Davies (1942). Public Health LV, No. 4, p. 86.
8. An Outbreak of Paratyphoid B in Bristol (1942). Davies, Cooper, Fleming. Lancet, January 31st, p. 129.
9. The Isolation of Bact. paratyphosum B from Fæces. Cooper, Wood, Elliot, Caswell and Small (1942). J. Path. & Bact. LIV, No. 3, 345.
10. The Isolation of Bacteria by Tetrathionate Broth. Cooper, Baker, Elliott, Wood. Read at meeting of Path. Soc., July, 1942.
11. Actinomyces Necrophorus from Bovine and Sheep metastatic abscesses. Cooper, Elliott and Woodman. Read at meeting of Path. Soc., July, 1942.
12. A Case of Chronic Regional Ileitis of undetermined ætiology in a new-born Infant. Hewer and Woodman. Read at meeting of Path. Soc., July, 1942.
13. Complement Fixation Test in Meningococcal Meningitis. Lewis and Woodman. Read at meeting of Path. Soc., July, 1942.
14. Pneumonia in Infants, Children and Adults. Ormiston, Woodman and Lewis. Quarterly J. Medicine, July, 1942. New Ser. XI, No. 43, p. 155.
15. The Laboratory Control of Pasteurised Milk. Cooper, Woodman and Nicholls (1943). Medical Officer, April 3rd.
16. The Streptococcal Diseases. Cooper (1944). Nursing Mirror, November 4th, p. 63.
17. A Survey of the Vitamin C Level in Wartime in Pregnant Women. Craig, Lewis and Woodman (1944). Brit. Med. J., April 1st, Vol. 1, p. 455.
18. Substitution of Specimens of Fæces for Bacteriological Examination. Cooper. Mon. Bull. of M. of H. and E.P.H.L. Service (1944). July, Vol. 3, 122.
19. The Diffusion of Antiseptics through Agar Gels, with special reference to Crystal Violet and Penicillin (1945). Cooper and Woodman. Read at Path. Soc., March, 1945, and submitted for publication.
20. The Diphtheria Carrier Rate in Immunised Children. Cooper and Davies. Mon. Bull. of M. of H. and E.P.H.L. Service (1945). April, Vol. 4 p. 86.

Appendix V.

REPORT OF THE PUBLIC ANALYST

by Mr. F. E. NEEDS

During the year, 2,950 examinations were made, of which number 1,996 were samples submitted under the Food and Drugs Act. Of these latter, 69 were adulterated, equal to an adulteration rate of 3.46 per cent. The remaining specimens comprised samples of water, fertilisers, rag flock, specimens taken under the Pharmacy and Poisons Act, and many miscellaneous determinations.

Milk Samples.

These numbered 1,441, of which 40 (or 2.78 per cent.) were adulterated. Added water was certified in 24 samples, the greatest amount alleged being 85.3 per cent. in an informal sample taken at a restaurant. Twenty-three samples were slightly deficient in non-fatty solids, but gave normal freezing point depressions, indicating that the deficiency was due to abnormality and not to the addition of water. Sixteen samples were deficient in fat, the largest deficiency being 16.6 per cent. The mean composition of all milk samples—genuine, adulterated, suspicious and abnormal, was fat 3.72, non-fatty solids 8.79 per cent.

Other Food Samples.

Of the 29 samples condemned, eight were unfit for consumption on account of infestation with either mites, beetles or moths, and one sample of cornflour was contaminated with dirt. A sample of bread was found to be infested with the " rope " organism. Two samples of sausages were deficient in meat, two samples of cocoa were deficient in fat and contained an excessive amount of cocoa shell, and one sample of cocktail contained 130 parts per million benzoic acid in excess of amount permitted. Six samples of mineral water were condemned, three for deficiency in crystalline citric acid and sugar, one for deficiency in crystalline citric acid, and two for deficiency in sugar. Two samples of milk powder were insoluble in water, a sample of sugar contained 14.3 per cent. salt ($NaCl$), and two samples of vinegar were deficient in acetic acid. Two samples of curry powder contained lead—the highest amount found being 48 parts per million, and one sample of mustard was deficient in allyl isothiocyanate.

Drugs.

Fifty-eight samples were examined, all of which were found to be genuine. They comprised aspirin tablets, zinc ointment, boracic ointment, epsom and glauber salts, tincture of iodine, castor oil, camphorated oil, almond oil and bicarbonate of soda.

Miscellaneous.

Thirty-eight samples received from the chief sanitary inspector for examination for fitness of human consumption, or on account of alleged infestation. The samples examined under the heading " miscellaneous " numbered 137, and were very varied. These included 14 samples of urine which were examined for lead and arsenic; sump oil from motor trucks; furniture cream; dehydrated potato and cabbage; and samples of medicine and ointment.

Several toxicological investigations were undertaken; in one case a child of two years drank the contents of a bottle of polish containing nitrobenzene, and recovered after treatment. Trichlorethylene was the toxic agent identified in another case—the substance being accidentally swallowed in mistake for lemonade. An investigation of interest took place following complaints of sickness in a neighbourhood where, it was finally disclosed, a misguided person had used the arsenical smoke DM for fumigating purposes. Examinations were made under the Rag Flock Act, the Pharmacy and Poisons Act (8 specimens), and the Fertilisers and Feeding Stuffs Act (9 samples).

Tests for calorific value, pressure and purity of the gas supplied to the city were carried out under the Gas Undertakings Acts, 1920-34, at the three testing stations in the city, and these involved practically daily visits. The declared calorific value is 460 B.Th.U. (gross) per cubic foot, and the average for the year was 461 B.Th.U.

Investigation of the pollution of the atmosphere war carried out on the remaining gauge at the Zoo, and it is intended that as soon as conditions are suitable this work will be amplified and extended.

Appendix VI.

A.—VITAL STATISTICS.

Table 1.—Supplied by the Registrar General.

Population, marriages, births, deaths, natural increase, infant mortality, for calendar year 1944 and previous five years.—Bristol.

	1944	1943	1942	1941	1940	1939
Estimated civilian population (mid year)	405,530	370,800	362,200	360,150	411,400	419,200
Marriages.						
Number	3,071	3,123	4,131	4,125	5,099	4,860
Rate per 1,000 population ..	15.15	16.8	22.8	22.9	24.79	23.19
Births.						
Legitimate—males	3,726	3,369	3,164	2,614	3,180	3,106
females	3,492	3,082	2,956	2,516	2,973	2,929
Illegitimate—males	290	214	158	113	100	98
females	259	220	144	136	110	86
Total	7,767	6,885	6,422	5,379	6,363	6,219
Rate per 1,000 population ..	19.15	18.57	17.73	14.94	15.47	14.84
Stillbirths.						
Legitimate—males	115	101	123	88	117	133
females	85	97	96	82	103	108
Illegitimate—males	15	5	8	5	4	8
females	3	6	3	8	4	4
Total	218	209	230	183	228	253
Rate per 1,000 total births ..	27	29	34	33	35	39
Deaths.						
Males	2,308	2,327	2,203	2,841	3,176	2,576
Females	2,149	2,271	2,162	2,772	3,240	2,578
Total	4,457	4,598	4,365	5,613	6,416	5,154
Rate per 1,000 population ..	10.99	12.40	12.05	15.59	15.60	12.29
Natural increase per 1,000 population	8.16	6.17	5.68	*decrease* *.65*	*decrease* *.13*	2.65
Deaths under 1 year.						
Legitimate	244	290	221	253	336	240
Rate per 1,000 births	34	45	36	49	55	40
Illegitimate	24	23	14	37	22	21
Rate per 1,000 births	44	53	46	149	105	114
Total deaths	268	313	235	290	358	261
Rate per 1,000 births	35	45	37	54	56	42
Deaths under 1 month.						
Total deaths	143	191	167	138	196	147
Rate per 1,000 live births ..	18	28	24	27	30	21
Diarrhoea and enteritis—(under two years)						
Deaths	33	31	8	25	42	22
Rate per 1,000 live births ..	4.2	4.5	1.25	4.7	6.6	3.5
Maternal mortality.						
Deaths from puerperal sepsis ..	3	2	2	2	5	4
Rate per 1,000 births	0.37	.28	.30	.37	.76	.62
Deaths from other puerperal causes	7	8	11	5	13	15
Rate per 1,000 total births ..	0.88	1.13	1.80	0.92	1.97	2.31
Total deaths from puerperal causes	10	10	13	7	18	19
Rate per 1,000 total births ..	1.25	1.41	2.10	1.29	2.73	2.93

Table 2.—Supplied by the Registrar General.

Birth-rates, death-rates, infant mortality, maternal mortality and case-rates for certain infectious diseases in the year 1944.

(Provisional figures based on weekly and quarterly returns).

	Bristol	England and Wales	126 County Boroughs and great towns including London	148 Smaller towns (resident populations 25,000 to 50,000 at 1931 Census)	London Administrative County
	Rates per 1,000 population				
BIRTHS :					
Live	19.15	17.6	20.3	20.9	15.0
Still	0.54	0.50	0.64	0.61	0.42
DEATHS :					
All causes ..	10.99	11.6	13.7	12.4	15.7
Typhoid and paratyphoid fevers	—	0.00	0.00	0.00	0.00
Smallpox ..	—	0.00	—	—	—
Measles ..	0.005	0.01	0.01	0.01	0.00
Scarlet fever ..	0.002	0.00	0.00	0.00	0.00
Whooping cough	0.027	0.03	0.03	0.02	0.04
Diphtheria ..	0.005	0.02	0.03	0.03	0.01
Influenza ..	0.069	0.12	0.10	0.11	0.08
Notifications :					
Smallpox ..	—	0.00	0.00	0.00	0.00
Scarlet fever ..	1.78	2.40	2.41	2.67	1.57
Diphtheria ..	0.40	0.58	0.67	0.69	0.31
Enteric fever ..	—	0.02	0.01	0.02	0.02
Erysipelas ..	0.36	0.29	0.32	0.28	0.37
Pneumonia ..	1.19	0.97	1.13	0.82	0.93
Measles ..	2.00	4.16	4.51	3.94	2.98
Whooping cough	2.26	2.49	2.49	2.29	2.90
Cerebro-spinal meningitis ..	0.04	0.05	0.06	0.04	0.06
	Rates per 1,000 live births.				
Deaths under 1 year of age	35	46	52	44	61
Deaths from diarrhoea and enteritis under 2 years of age ..	4.2	4.8	7.3	4.4	10.1
MATERNAL MORTALITY:					
Puerperal sepsis	0.39				
Others	0.90	Not	Available		
Total	1.29				
	Rate per 1,000 total births (i.e. live and still).				
MATERNAL MORTALITY:					
Puerperal sepsis	0.37				
Others	0.88				
Total	1.25	1.93			
NOTIFICATIONS :					
Puerperal fever Puerperal pyrexia	11.90	10.34	13.13	9.25	3.61 10.53

Table 3.

Compiled from figures supplied by Registrar General.

Total deaths by cause and age during the calendar year 1944—Bristol.

CAUSES OF DEATH.	Sex	All Ages	0—1	1—5	5—15	15-45	45-65	65+
ALL CAUSES	M.	2,308	157	27	32	224	673	1,195
	F.	2,149	111	18	15	215	484	1,306
1. Typhoid & paratyphoid fevers	M.	–	–	–	–	–	–	–
	F.	–	–	–	–	–	–	–
2. Cerebro-spinal fever	M.	1	1	–	–	–	–	–
	F.	1	–	–	–	1	–	–
3. Scarlet fever	M.	1	–	–	–	1	–	–
	F.	–	–	–	–	–	–	–
4. Whooping cough	M.	6	6	–	–	–	–	–
	F.	5	2	3	–	–	–	–
5. Diphtheria	M.	1	–	–	–	1	–	–
	F.	1	–	1	–	–	–	–
6. Tuberculosis of respiratory system	M.	122	–	–	3	68	38	13
	F.	101	1	–	–	70	23	7
7. Other forms of Tuberculosis	M.	17	2	6	–	6	3	–
	F.	14	–	2	2	8	2	–
8. Syphilitic disease	M.	20	–	–	–	3	11	6
	F.	9	1	–	–	2	3	3
9. Influenza	M.	14	–	–	–	2	6	6
	F.	14	–	–	–	4	1	9
10. Measles	M.	1	–	1	–	–	–	–
	F.	1	1	–	–	–	–	–
11. Acute poliomyelitis & polio-encephalitis	M.	2	–	–	–	1	1	–
	F.	–	–	–	–	–	–	–
12. Acute infectious encephalitis	M.	3	–	–	–	1	2	–
	F.	3	–	–	–	1	1	1
13. Cancer of buccal cavity and oesophagus	M.	39	–	–	–	1	16	22
13. Cancer of uterus	F.	58	–	–	–	7	31	20
14. Cancer of stomach & duodenum	M.	89	–	–	–	5	41	43
	F.	56	–	–	–	3	14	39
15. Cancer of breast	M.	2	–	–	–	–	–	2
	F.	84	–	–	–	16	40	28
16. Cancer of all other sites	M.	232	–	1	–	11	99	121
	F.	190	–	1	1	11	61	116
17. Diabetes	M.	15	–	–	–	1	8	6
	F.	23	–	–	–	1	6	16
18. Intra-cranial vascular lesions	M.	185	–	–	–	4	53	128
	F.	257	–	–	–	–	64	193
19. Heart disease	M.	651	–	–	1	24	171	455
	F.	654	–	–	1	24	109	520
20. Other diseases of circulatory system	M.	60	–	–	–	3	17	40
	F.	51	–	–	1	–	12	38
21. Bronchitis	M.	134	4	1	–	1	37	91
	F.	87	3	–	–	2	12	70
22. Pneumonia	M.	120	29	8	2	10	31	40
	F.	93	16	3	1	9	15	49
23. Other respiratory diseases	M.	28	–	–	–	1	15	12
	F.	17	–	–	–	1	7	9
24. Ulceration of stomach and duodenum	M.	40	–	–	–	11	17	12
	F.	15	–	–	–	2	5	8
25. Diarrhoea (under 2 years of age)	M.	19	18	1	–	–	–	–
	F.	14	14	–	–	–	–	–
26. Appendicitis	M.	6	–	2	–	–	1	3
	F.	3	–	–	–	–	1	2
27. Other digestive diseases	M.	36	1	–	1	5	12	17
	F.	43	1	–	–	3	12	27
28. Nephritis	M.	67	–	–	3	7	21	36
	F.	56	–	–	–	8	14	34
29. Puerperal & post-abortive sepsis	F.	3	–	–	–	3	–	–
30. Other maternal causes	F.	7	–	–	–	7	–	–
31. Premature birth	M.	34	34	–	–	–	–	–
	F.	30	30	–	–	–	–	–
32. Congenital malformations, birth injury, infantile disease	M.	54	47	1	1	1	3	1
	F.	42	37	1	1	–	1	2
33. Suicide	M.	35	–	–	–	12	13	10
	F.	13	–	–	–	4	3	6
34. Road traffic accidents	M.	24	–	1	7	5	11	–
	F.	15	–	3	3	3	4	2
35. Other violent causes	M.	56	2	3	4	20	9	18
	F.	36	2	–	1	1	6	26
36. All other causes	M.	194	13	2	10	19	37	113
	F.	153	3	4	4	24	37	81

Table 4.

Compiled from figures supplied by Registrar General.

Principle causes of death during calendar year 1944—Bristol.

Death Rate per 1,000	Disease	Net deaths in 1944	% to total deaths
—	Typhoid and paratyphoid fevers	—	—
0.005	Cerebro-spinal fever	2	.04
0.002	Scarlet fever	1	.02
0.027	Whooping cough	11	.25
0.005	Diphtheria	2	.04
0.550	Tuberculosis of respiratory system	223	5.00
0.076	Other forms of tuberculosis	31	.70
0.072	Syphilitic disease	29	.65
0.069	Influenza	28	.63
0.005	Measles	2	.04
0.005	Acute poliomyelitis and polio-encephalitis	2	.04
0.015	Acute infectious encephalitis	6	.14
0.096	Cancer of buccal cavity and oesophagus	39	.88
0.143	Cancer of uterus	58	1.30
0.358	Cancer of stomach and duodenum	145	3.25
0.212	Cancer of breast	86	1.93
1.041	Cancer of all other sites	422	9.47
0.094	Diabetes	38	.85
1.090	Intra cranial vascular lesions	442	9.92
3.218	Heart disease	1,305	29.28
0.274	Other diseases of circulatory system	111	2.49
0.545	Bronchitis	221	4.96
0.525	Pneumonia	213	4.78
0.111	Other respiratory diseases	45	1.01
0.136	Ulceration of stomach and duodenum	55	1.23
0.081	Diarrhoea	33	.74
0.022	Appendicitis	9	.20
0.195	Other digestive diseases	79	1.77
0.303	Nephritis	123	2.76
0.007	Puerperal and post-abortive sepsis	3	.07
0.017	Other maternal causes	7	.16
0.158	Premature birth	64	1.44
0.237	Congenital malformations, birth injury, infantile disease	96	2.15
0.118	Suicide	48	1.08
0.096	Road traffic accidents	39	.88
0.227	Other violent causes	92	2.06
0.856	All other causes	347	7.79
10.99	ALL CAUSES	4,457	

Table 5.

POPULATION, BIRTH-RATES, DEATH-RATES, ZYMOTIC DEATH-RATES, MATERNAL MORTALITY, ETC., IN 14 LARGE TOWNS for the year 1944.

Name of Town	Population as estimated by Registrar-General Mid. 1944.	Per 1,000 Population		Death Rates per 1,000 population from :—										Infantile Mortality Rate.	Maternal Mortality per 1,000 total births.		
												Tuberculosis.					
		Birth Rate.	Death Rate.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Typhoid & paratyphoid Fever.	Diarrhoea under 2 yrs.	Influenza.	Cancer.	Pulmonary.	Other forms.		From Sepsis.	From Other Causes.	Total.
BIRMINGHAM ..	990,000	22.7	11.3	0.00	0.00	0.03	0.02	—	0.14	0.11	1.75	0.70	0.09	42	0.60	0.74	1.34
BRADFORD ..	261,890	17.7	15.0	0.01	0.00	0.03	0.06	0.01	0.07	0.11	2.32	0.44	0.10	53	0.83	1.67	2.50
BRISTOL ..	**405,530**	**19.15**	**10.99**	**0.01**	**0.00**	**0.03**	**0.01**	—	**0.08**	**0.07**	**1.85**	0.55	0.08	35	0.38	0.88	1.25
CARDIFF ..	215.130	20.72	12.54	0.00	0.00	0.02	0.03	0.00	4.04 *	0.10	1.75	0.69	0.12	46	1.52	0.87	2.39
COVENTRY ..	240,000	22.8	9.0	0.03	—	0.01	0.02	—	0.14	0.05	1.45	0.59	0.08	48	0.55	2.19	2.74
HULL ..	229,640	21.6	14.0	—	0.00	0.02	0.02	—	0.23	0.10	2.13	0.72	0.16	58	1.37	0.58	1.95
LEEDS ..	451,100	18.9	13.6	—	0.01	0.01	0.02	0.00	8.90 *	0.09	2.03	0.61	0.09	50	—	1.37	1.37
LEICESTER ..	257,450	20.3	11.9	—	—	0.02	0.02	—	0.10	0.06	2.02	0.67	0.09	39	0.56	0.37	0.93
LIVERPOOL ..	666,230	23.1	13.5	0.02	0.00	0.05	0.05	0.00	0.08	0.09	1.82	0.89	0.12	57	0.82	1.13	1.95
MANCHESTER ..	614,760	19.8	14.2	0.01	—	0.04	0.01	—	0.12	0.08	2.09	0.80	0.11	54	0.64	1.19	1.83
NEWCASTLE ..	262,920	20.4	13.1	0.00	0.00	0.03	0.04	0.00	0.12	0.03	1.97	0.86	0.25	50	0.19	3.17	3.36
NOTTINGHAM ..	262,310	21.73	13.3	0.01	0.01	0.04	0.01	—	0.31	0.09	1.93	0.71	0.13	56	0.34	0.51	0.85
PORTSMOUTH ..	155,860	23.53	15.23	0.02	—	0.01	0.00	0.00	0.12	0.09	2.22	0.90	0.13	45	0.52	0.79	1.32
SHEFFIELD ..	474,180	21.24	12.45	0.00	0.00	0.02	0.03	—	0.08	0.11	1.87	0.52	0.11	41	0.19	0.68	0.87
STOKE-ON-TRENT	250,500	21.4	11.6	0.02	0.00	0.01	0.03	—	7.10 *	0.90	1.69	0.64	0.12	51	1.07	1.07	2.14
SUNDERLAND ..	161,450	22.5	13.2	0.01	0.00	0.04	0.04	0.01	0.33	0.06	1.62	0.63	0.15	72	0.27	1.33	1.60

* Rate per 1,000 births.

Table 6.

Notifiable Diseases during 1944 (including **Port** cases). Local Figures.

NOTIFIABLE DISEASES.	NOTIFICATIONS.								REMOVED TO HOSPITAL		DEATHS. (Corrected for transfers.)									Notified in each quarter.				Attack rate per 1,000.
	At all ages.	At ages—years :									All ages	At ages—years												
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards	No.	%		Under 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards	1st	2nd	3rd	4th	
Diphtheria	161	4	22	89	29	14	2	1	160	99.4	2	..	..	1	..	..	1	..	..	65	46	29	21	0.40
Erysipelas	144	3	4	10	10	34	62	21	67	46.5	1	1	..	..	..	..	..	..	..	33	33	35	43	0.36
Scarlet fever	720	5	179	460	33	33	7	3	535	74.3	1	..	..	..	..	1	..	..	..	240	155	121	204	1.78
Enteric fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Para-typhoid	2	..	..	..	2	..	..	..	2	100.0	..	..	..	..	..	..	..	..	..	1	..	1	..	0.00
Cerebro-spinal meningitis	17	1	4	9	2	..	1	..	15	88.2	2	1	..	..	..	1	..	..	..	6	8	2	1	0.04
Poliomyelitis	1	..	1	..	..	..	..	..	1	100.0	2	..	..	..	..	1	..	1	..	..	..	1	..	0.00
Pneumonia	484	27	71	68	31	100	121	66	234	48.3	219	46	6	5	3	8	12	47	92	196	134	46	108	1.19
Malaria	17	..	..	..	5	10	2	..	10	58.8	..	..	..	..	..	..	..	..	..	8	4	3	2	0.04
Dysentery	177	7	74	50	17	21	5	3	122	68.9	1	1	..	..	..	..	..	..	..	3	51	19	104	0.44
Encephalitis lethargica ..	..	..	..	..	..	..	..	..	..	..	6	..	..	..	..	..	2	3	1	..	..	..	..	..
Polio-encephalitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal pyrexia ..	95	..	..	..	46	49	..	..	16	16.8	3	..	..	..	..	..	3	..	..	24	20	24	27	0.23
Ophthalmia neonatorum ..	4	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	1	..	0.01
Measles	813	28	336	424	16	7	2	..	68	8.4	2	1	1	..	..	..	..	..	..	24	19	31	739	2.00
Whooping cough	917	132	541	229	12	1	2	..	102	11.1	11	8	..	3	..	..	..	..	..	139	225	347	206	2.26

Table 7.

Tuberculosis (including **Port** cases). Local Figures.

	CASES.																DEATHS. (Corrected for transfers.)												
	At all ages	Under 1	1–	5–	10–	15–	20–	25–	35–	45–	55–	65+	Quarters				Case rate per 1000 Popu'tn	At all ages	Under 1	1–	5–	10–	15–	20–	25–	35–	45–	55–	65+	Death rate
													1st	2nd	3rd	4th														
Pulmonary tuberculosis Cases notified	515	..	5	6	20	81	87	104	93	61	37	21	136	142	128	109	1.34	226	..	..	2	1	13	29	47	47	30	37	20	0.56
Other cases*	29	..	1	1	2	2	4	3	5	3	5	3	5	7	10	7														
Non-pulmonary tuberculosis Cases notified	90	1	7	19	13	14	10	10	9	7	..	..	23	24	25	18	0.26	30	3	8	2	..	2	3	6	2	4	..	..	0.07
Other cases*	14	2	6	1	..	..	2	2	1	..	..	..	1	4	4	5														
Total 1944	648	3	19	27	35	97	103	119	108	71	42	24	165	177	167	139	1.60	256	3	8	4	1	15	32	53	49	34	37	20	0.63
Total 1943	717	10	16	29	31	90	122	161	96	87	53	22	202	169	160	186	1.98	305	10	14	7	3	22	29	66	49	48	42	15	0.82
1942	587	4	12	10	30	29	59	113	103	94	78	55	153	152	128	154	1.62	264	6	11	3	6	2	21	30	42	53	47	43	0.70
1941	588	7	33	30	21	89	80	113	91	71	37	16	144	167	121	156	1.63	310	5	11	7	4	29	32	65	60	43	35	19	0.86
1940	564	5	40	44	20	81	65	113	85	57	35	19	157	179	120	108	1.37	273	2	16	4	3	24	36	44	47	52	36	9	0.66
1939	567	4	33	43	33	68	75	105	77	66	43	20	154	155	134	124	1.35	313	3	8	4	8	21	25	57	72	54	41	20	0.75
1938	666	4	31	68	42	80	88	131	95	69	41	17	210	170	133	153	1.59	270	1	7	4	2	27	32	65	50	49	22	11	0.64

* Cases coming to the knowledge of the M.O.H. otherwise than by notification.

Table 8.

1944.

INFANT MORTALITY. (Corrected for transfers) Local Figures.

Total	CAUSE OF DEATH	Under one day	Under one week	Weeks			Total under one month	Months											Total	Deaths in Quarters			
1943				1-2	2-3	3-4		1	2	3	4	5	6	7	8	9	10	11	1944	1st	2nd	3rd	4th
..	Chicken pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4	Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	1
..	Whooping cough	..	..	..	..	1	1	1	2	1	..	1	..	..	2	..	..	..	8	..	3	2	3
1	Diphtheria and croup ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Erysipelas	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	1	..	..
6	Tuberculous meningitis ..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	2	1	..	1	..
..	Abdominal tuberculosis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2	Other tuberculous diseases ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	..
2	Meningitis (Non-T.B.) ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..
..	Convulsions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
1	Bronchitis	..	..	..	..	..	..	..	..	2	2	..	..	1	..	1	..	..	6	3	2	..	1
62	Pneumonia (all forms) ..	..	2	2	1	2	7	12	4	7	4	1	1	2	4	..	2	1	45	22	5	7	11
1	Influenza	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
30	Diarrhoea and enteritis ..	..	..	..	..	..	..	6	6	4	7	2	2	3	2	..	..	1	33	10	5	8	10
..	Gastritis	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..
..	Suffocation, overlaying ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
8	Injury at birth	5	5	1	..	..	11	..	..	..	..	..	..	..	..	..	..	..	11	3	3	4	1
27	Atelectasis	13	6	3	1	1	24	..	..	..	..	..	..	..	..	..	..	..	24	4	6	4	10
47	Congenital malformations ..	3	12	4	2	3	24	6	3	1	..	1	1	2	1	..	..	1	40	8	11	7	14
88	Premature birth	36	21	4	..	2	63	3	..	..	..	..	..	..	..	..	..	..	66	14	22	10	20
16	Atrophy, debility & marasmus	..	..	..	1	1	2	1	2	..	..	1	..	..	..	..	..	..	6	2	1	2	1
22	Other causes	..	8	..	2	..	10	3	..	1	1	..	2	1	..	1	..	..	19	2	6	3	8
..	Found dead	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
..	Syphilis	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
317	Totals	57	55	14	7	10	143	34	18	16	14	6	6	10	9	2	4	4	266	69	66	50	81

Table 9.

MATERNAL MORTALITY. Uncorrected Local Figures.

Cause of Death	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1944—Age Groups.					
											15—	20—	25—	30—	35—	40+
Puerperal Sepsis	3	7	4	3	4	4	1	3	1	4			1	2		1
Septic Abortion	2	—	4	—	2	1	—	—	1	—						
Abortion (non-septic) ..	—	—	1	3	—	—	—	—	1	—						
Ruptured Ectopic Gestation	—	1	1	1	—	1	1	—	—	1			1			
Hydatidiform mole	—	—	—	—	—	—	—	—	—	1		1				
Puerperal Toxaemia ..	4	—	4	4	4	4	—	—	—	3		1		2		
Eclampsia	—	1	4	2	5	3	1	1	5	1					1	
Dystocia	—	—	—	1	1	—	—	—	1	1				1		
Retained Placenta	—	—	—	—	—	—	—	—	—	2		2				
Placenta Praevia	2	—	1	1	—	2	—	1	2	—						
Post-Partum haemorrhage	—	2	2	2	6	1	—	2	1	1			1			
Embolism	1	3	1	3	—	2	1	1	4	1				1		
Ruptured uterus	—	—	—	—	—	1	—	1	—	—						
Obstetric shock	3	5	2	3	—	4	1	1	2	—						
Acute yellow atrophy ..	—	—	—	—	—	—	—	2	2	—						
Chorea	—	—	—	—	—	—	—	1	—	—						
Intestinal obstruction ..	—	—	—	—	—	—	—	—	—	—						
Uraemia	—	—	—	—	—	—	—	—	—	—						
Pulmonary Oedema ..	—	—	—	—	1	—	—	—	—	—						
Total	15	19	24	23	23	23	5	13	20	15	—	4	3	6	1	1
Rate per 1,000 total births	2.51	3.10	3.85	3.65	2.93	2.83	1.33	1.95	2.65	1.74						
Deaths in institutions ..	13	15	17	17	17	18	5	12	19	13						
Age Groups—																
15—20 ..	1	—	1	—	—	1	—	—	1	—						
20—25 ..	—	3	4	4	4	4	—	4	4	4						
25—30 ..	3	4	7	6	4	10	2	4	3	3						
30—35 ..	3	4	5	4	9	4	2	1	7	6						
35—40 ..	5	4	5	8	4	4	1	3	3	1						
40× ..	3	4	2	1	2	—	—	1	2	1						

B.—DEPARTMENT OF PREVENTIVE MEDICINE.

Table 1—Pathological and Bacteriological Examinations.

1943		1944
	Swabs.	
	Throat and Nose.	
166	K.L.B.	–
10,348	,, Culture	10,252
7	,, Virulence	27
2,438	Haemolytic Streptococci	2,537
–	Typing	6
275	Other organisms	374
	Other Sources.	
–	Laryngeal for T.B.	24
	Sputa.	
9	Malignant Cells	7
2,277	Tuberculosis	3,023
1	Pneumococcal Typing	–
191	Other organisms	399
4	Elastic Fibres	–
–	Vaccine	–
	Blood.	
–	Special Haematology Investigations	14
300	Blood counts	1,386
745	Differential counts	809
1,176	Haemoglobin counts	1,313
77	Reticulocyte counts	246
10	Platelet counts	10
291	Sedimentation rate	479
15	Bleeding time	13
15	Coagulation time	13
–	Bilirubin investigations	62
13	Sugar tolerance	27
36	Sulphonilamides	–
–	Penicillin	2
581	Urea	958
95	Sugar	112
82	Agglutination	76
2	Uric acid	2
41	Films for malaria	119
43	Paul Bunnell	26
8	Grouping	4
7	Proteins	15
13	Fragility	13
4	Chlorides	6
15	Ascorbic Acid	–
16	Phosphatase	28
4	Calcium	3
1	Cholesterol	4
32	Blood Culture (Enteric)	39
	,, ,, (Other organisms	
46	Van den bergh	–
12	Miscellaneous	–
	Stomach Contents.	
1,753	Test Meals	1,727
–	Washings for Tubercle	6
–	Vomits	–
	Faeces.	
463	Enteric	290
144	Food poisoning	105
3,114	Dysentery	2,289
51	Tuberculosis	28
254	Other organisms	282
12	Amoebic dysentery	9
335	Occult blood	259
18	Fat	28
–	Bile Pigments	5
–	Parasites	12

Pathological and Bacteriological Examinations—*continued.*

1943		1944
	Urine.	
1,540	Routine	2,341
1,483	Culture	1,773
15	Enteric	33
80	Friedman	124
376	Urea concentration	173
48	T.B.	31
30	Inoculation for T.B.	7
1	Amoebic Dysentery	–
161	Ascorbic Acid	–
–	Hippuric Acid	2
2	Chlorides	–
3	Water Clearance	–
2	Acetone	10
43	Sugar	18
1	Urobilin	10
–	Bile Pigments	41
–	Calcium	1
–	Sulphonamides	1
–	Pencillin	4
32	Bilirubin	–
16	Miscellaneous	–
	Pus.	
111	Penicillin	55
	Organisms (aerobic)	173
	,, (anaerobic)	25
	Fluids. (for cells, biochemistry and organisms).	
198	Cerebro spinal fluids	278
138	Pleural fluids	189
	Seminal fluids	–
	Other fluids	20
–	C.S. Fluids for pencillin	–
–	Pleural Fluids for pencillin	–
	Histology.	
296	Human tissues	292
28	Animal tissues	9
92	*Post Mortems.*	137
	Waters.	
137	Bacterial counts	109
14	Differential counts	35
–	Organisms	–
	Rats.	
799	Plague	1,938
–	Other organisms	–
–	*Mice.*	–
	Milks.	
803	Tuberculosis	1,139
–	Haemolytic streptococci	–
–	Dysentery	2
–	Enteric	–
–	Other organisms	15
218	Accredited and Tuberculin tested	334
277	Pasteurised bact.	421
241	Pasteurised chemical	219
192	Phosphatase	281
28	Pasteurising plants	112
–	Ice cream	–
22	Churn rinses	67
79	Milk bottle rinses	52
–	Milk straws	–

Pathological and Bacteriological Examinations—*continued.*

1943		**1944**
	Venereal Disease.	
6,115	Blood for Wassermann reaction	**6,709**
5,814	Blood for Kahn	**6,515**
2,737	Complement Fixation Tests for Gonorrhoea	**3,738**
7	C.S. Fluid for Wassermann reaction	**114**
12	C.S. Fluid for Cells	**41**
11	C.S. Fluid for Chemical	**43**
52	C.S. Fluid for Lange	**52**
10,719	Films for Gonococci	**14,248**
–	Urine for Gonococci	**2**
887	Cultures for Gonococci	**1,939**
8	Fluid for spirochaetes	**107**
5	Special complement deviation tests	–
	Preparations.	
10	Tuberculin	**4**
–	Measles Serum	**30**
–	Penicillin	–
6	Vaccine (Gonococcal)	**4**
	,, (Others)	**12**
	Foodstuffs.	
82	Sterility	**12**
	Organisms	**24**
	Histology	**1**
19	*Whooping Cough Plates.*	**5**
	Immunisations.	
	Typhoid	**11**
	Typhus	**6**
	Tetanus	**4**
	Diphtheria	**2**
	Others	–
	Distributions.	
	Diphtheria Prophylactic	**63**
	Typhoid vaccines	**5**
	Other vaccines	–
	Tetanus	**8**
	Gas Gangrene	**14**
	Miscellaneous.	
–	Scrapings for fungi	**12**
8	Hair and scales for ringworm	**14**
–	Tape worm	**2**
–	Rope	**1**
–	Tooth	**1**
35	Sundries	–

C.—CLINICS.

Table I—**Maternity and Child Welfare.**

1943			1944
	(a)	*Notifications—*	
7,277		Live Births	8,403
265		Still Births	270
69		Confinements at Home—by Doctor	63
2,087		by Midwife	2,270
5,386		Confinements at Institutions	6,351
	(b)	*Forms of Maternity Assistance Granted—*	
2,036		Midwives Fees	2,116
2		Consulting Obstetricians	—
301		Dentures	209
3		Spectacles	6
390	(c)	*Fees claimed by Medical Practitioners—*	401
	(d)	*Muncipal Midwives cases completed—*	
1,452		(*a*) as Midwife	1,581
382		(*b*) as Maternity Nurse	321
20,578		Nursing Visits	21,848
9,574		Other Visits	9,905
	(e)	*Attendances at Clinics—*	
	(i)	*Muncipal Ante-natal* (*Medical Officers Sessions*).	
2,210		Verrier Road	2,709
2,819		Bedminster	3,127
1,542		Brislington	1,456
1,966		Knowle West	2,037
3,574		North Bristol	3,686
1,377		Portway	1,573
4,397		Central	4,962
3,256		South Bristol	3,001
4,173		Southmead	4,565
3,806		Speedwell	2,514
29,120			29,630
25.4		Average per session	23.7
4,753		New Patients	4,351
8,354	(ii)	*Midwives ante-natal*	7,941
	(iii)	*Post natal Clinics—*	
661		Central	980
523		Bedminster	432
753		Speedwell	563
693		Southmead	655
67		Portway	—
8		Knowle	373
2,705			3,003
12.6		Average per session	13.4
1,298		New Patients	1,339

Maternity and Child Welfare—*continued.*

1943			1944
4,921	(iv)	*Consultative Ante-Natal Clinics*	5,815
	(v)	*Municipal Infant Welfare Centres*—	
		Mothers—	
4,663		Central	6,064
7,966		Speedwell	8,244
6,688		Southmead	6,144
3,547		Portway	3,992
5,357		Knowle West	7,828
3,506		South Bristol Baths	3,654
3,990		Bedminster	3,369
—		Barton Hill	1,464
—		Headley Park	785
—		Moorfields	872
35,717			42,416
37.2		Average attendance per session	42.8
		Children under 1 year—	
3,714		Central	6,004
6,561		Speedwell	8,181
5,418		Southmead	6,090
2,685		Portway	3,927
3,952		Knowle West	7,723
3,009		South Bristol	3,693
3,051		Bedminster	3,324
—		Barton Hill	1,396
—		Headley Park	780
—		Moorfields	850
28,390			41,968
29.6		Average attendance per session	42.3
		Children between 1 and 5 years—	
1,165		Central	1,238
1,681		Speedwell	1,891
1,704		Southmead	1,735
1,150		Portway	1,812
1,552		Knowle West	2,093
604		South Bristol	540
1,199		Bedminster	713
—		Barton Hill	437
—		Headley Park	168
—		Moorfields	217
9,055			10,844
9.4		Average attendance per session	10.9
		New Patients—	
2,503		Children under 1 year	2,713
229		Children between 1 and 5 years	297
	(vi)	*Voluntary Infant Welfare Centres*—(13)	
25,925		Mothers	25,813
35.2		Average attendance per session ..	41.5
19,164		Children under 1 year	18,434
26		Average attendance per session ..	29.4
8,946		Children between 1 and 5 years	9,265
12.1		Average attendance per session ..	14.8
		New Patients—	
1,986		Children under 1 year	1,515
267		Children between 1 and 5 years	228
	(vii)	*Birth Control*—	
78		Attendances	119

Maternity and Child Welfare—*continued.*

1943			1944
	(viii)	*Minor Ailments*—	
3,198		Inspection	2,840
11,251		Treatment	9,147
1,980		New Patients	2,016
224		Ante and Post Natal Exercises	252
	(xi)	*Other Special Clinics*—	
105		Attendances	95
11		New Patients	15
	(f)	*Health Visitors' Visits*—	
6,579		Notified Births—Primary	7,146
14,349		under 1 year	18,188
26,661		1 to 5 years	29,791
516		Eye Cases	839
25		Ophthalmia Neonatorum	42
1		Summer Diarrhoea	—
587		Ante-Natal	427
88		Neo-Natal deaths	36
6,038		Other Special Visits	7,090
14,254		Blank Visits	14,310
6,513		Municipal Clinics	
501		Schools for mothers	
1,934		Tuberculosis	736
776		Blank Visits	458
905		Sessions at Nursery Classes (hours)	1,468
	(g)	*Visits by Inspector of Midwives and Nursing Homes*—	
790		Midwives Acts	689
235		Blank Visits	185
62		Nursing Homes	53
31		,, ,, (special)	29
	(h)	*C.M.B. Forms*—	
1,410		A. Medical Help	1,372
12		B. Death	9
37		C. Stillbirth	32
26		D. Laying out the Dead	28
60		E. Liability of Infection	46
70		F. Artificial Feeding	74
	(i)	*Infant Life Protection*—	
1,020		No. of Visits	411
70		Children under supervision at end of period	76
8		Removed from Register at age limit	—
24		Transferred to relatives	24
12		Legally adopted	10
8		Removed for other reasons	8
38		Persons registered as receiving children	31

Table 2—**Sunlight Treatment.**

1943				1944		
Central Clinic	South-mead (out patients)	Total		Central Clinic	South-mead (out patients)	Total
			Chest :—			
83		83	Patients	55	—	55
1,441		1,441	attendances ..	922	—	922
			School :—			
516	84	600	Patients	442	119	561
5,497	2,396	7,893	attendances ..	5,218	2,041	7,259
			M. & C. W. :—			
679	48	727	Patients	631	110	741
8,133	1,758	9,891	attendances ..	5,942	2,015	7,957
			Others :—			
			incl. short wave etc.			
	224	224	Patients	—	418	418
	5,031	5,031	attendances ..	—	5,589	5,589

Table 3—**Eye Clinics.**

1943			1944	
New Patients	Attendances		New Patients	Attendances
1,233	5,093	School Children	1,413	5,937
76	245	Infants	141	444
54	68	Adults	52	65
1,363	5,406		1,606	6,446

Table 4—**Orthopaedic Department.**

1943		Inspections :—	1944	
Patients	Attendances		Patients	Attendances
195	288	M. & C. W. ..	209	306
860	1,355	School	884	1,312
123	212	Chest	65	178
1,178	1,855	Totals	1,158	1,796
1943		Treatment :—	1944	
Patients	Attendances		Patients	Attendances
43	867	M. & C. W. ..	46	702
328	5,768	School	431	7,049
371	6,635	Totals ..	477	7,751

Table 5—**Dental Department.**

1943				1944		
Schools	Expectant Mothers & Nursing Mothers	Infants	Service.	Schools	Expectant Mothers & Nursing Mothers	Infants
27,621	1,132	594	Inspected	35,802	1,307	710
17,790	1,131	590	Requiring Treatment	24,981	1,307	709
16,141	1,181	629	Treated	19,086	1,094	753
25,127	3,075	883	Attendances	32,554	3,545	1,109
			Fillings :—			
10,015	635	—	Permanent Teeth	13,052	624	—
664	—	214	Temporary ,, . .	944	—	140
			Extractions :—			
4,339	4,881	—	Permanent Teeth	4,694	5,021	—
18,745	—	970	Temporary . .	24,676	—	1,472
10,643	1,248	427	Anesthetic Gas . .	12,153	1,350	658
			Other Operations . .			
4,028	690	—	Permanent Teeth	5,644	790	—
479	—	161	Temporary ,, . .	882	—	157

Table 6—**Ear, Nose and Throat Department.**

1943		Inspections :—	1944	
Patients	Attendances		Patients	Attendances
43	48	M. & C. W. . .	42	50
631	1,528	School	743	1,747
69	119	Chest	76	133
743	1,695	Totals . .	861	1,930
		Treatment :—		
22	231	M. & C. W. . .	13	294
203	4,980	School	264	5,349
225	5,211	Totals . .	277	5,643

Table 7—**X-Ray Department.**

1943				1944		
Film	Screen	Total		Film	Screen	Total
			Central Health Clinic—			
4,508	1,098	5,606	Chest	5,665	2,006	7,671
742	—	742	,, G.P's . .	1,214	—	1,214
484	—	484	Schools	536	—	536
680	—	680	M. & C. W. . .	573	—	573
95	—	95	Others	119	—	119
6,509	1,098	7,607		8,107	2,006	10,113
2,427	102	2,529	*Southmead Hospital—* Out-Patients . .	2,726	167	2,893
8,936	1,200	10,136	Totals . .	10,833	2,173	13,006

Table 8—**Scabies Baths.**

	Central Health * Clinic		Southmead Hospital		Avonmouth		Totals	
	1943	1944	1943	1944	1943	1944	1943	1944
Children ..	5,385	3,463	947	689	233	221	6,565	4,373
Infants ..	1,616	1,094	237	151	41	63	1,894	1,308
Adults—								
Females ..	3,918	2,967	569	303	236	124	4,723	3,394
Males ..	2,345	1,284	—	—	150	93	2,495	1,377
Total Attendances	13,264	8,808	1,753	1,143	660	501	15,677	10,452
† *New Patients*—								
Children ..	2,718	1,866	370	328	109	127	3,197	2,321
Infants ..	897	592	96	73	21	37	1,014	702
Adults—								
Females ..	2,127	1,614	250	145	146	87	2,523	1,846
Males ..	996	616	—	-	93	63	1,089	679
Total New Patients	6,738	4,688	716	546	369	314	7,823	5,548

* Includes Mayor's Paddock Baths (part year) and Marybush Lane.

† Included in "Total Attendances."
In addition to the above 357 patients involving 663 attendances were dealt with for adjacent authorities.

Table 9—**Dispensary.**

			1944
(1)	Establishments served—		
	Central Health Clinic		
	Health Centres and Clinics (11)		
	Hospitals and Institutions (11)		
	Day Nurseries, Special Nursery Schools and Classes (58)		
	Municipal Midwives (30)		
	Social Welfare District Medical Officer		
(2)	Turnover of Drugs, Dressings, etc.—		
	Quantity of mixtures made	gallons	546
	,, ointment made	lbs.	690
	Vit. A. & D. Emulsion	gallons	500
	Vit. A. & D. Capsules	caps.	95,000
	Whooping Cough Vaccine	c.c.	1,192
	A.P.T. Diph. Proph. (5 cc vials) ..	cc	2,525
	Other Medicines dispensed	lbs.	—
		gallons	230
	Lint and Cotton Wool	lbs.	2,382
	Insulin supplied	cc	1,296
(3)	Bulk purchase of Drugs—		
		lbs.	1,636
		gallons	263
		tabs.	776,000

Table 10—**Immunisations, Vaccinations, etc.**

1943			1944
	(i)	*Diphtheria*—Number of immunisations completed at Schools 7,267 and Clinics Nurseries 3,546, General Practitioners 634, during the year.	
4,854		Full course—Ages 0—5 years	4,526
6,430		Ages 5—15 years	2,270
3,423		Booster dose —15 years	4,651
14,707			11,447
		Estimated percentage of child population immunised	
50%		Ages 0—5	50%
70%		Ages 5—15	70%
	(ii)	*Typhoid Fever*—	
10		Number of persons inoculated	10
19		Number of injections given	19
	(iii)	*Vaccination*—	
1,793 (Provisional)		The number of vaccination certificates received during the year	3,608

Table 11—**Chest Clinic.**

1943		1944
2,196	New Patients—adults	2,124
848	children	871
3,801	Re-examination—adults	5,872
976	children	1,125
7,052	Total attendances (including above)—adults	8,781
3,278	children	3,063
	Home Visits—	
396	Doctors	410
1,965	Nurses	1,973
377	Injections—Tuberculin	164
195	Other	270
1,203	Artificial pneumothorax refills	1,801
1,441	Ultra-violet light cases	922
212	Orthopaedic surgeon	178
119	E.N.T. Surgeon	133
6,348	X-rays	8,885
1,192	Sputum examinations	1,683
13	Personal consultations—at home	23
27	Other	59
	Admissions to Institutions :—	
767	Adults	703
261	Children	278
	Cases on Register at end of year—	
3,154	Pulmonary	3,398
1,053	Non-Pulmonary	1,097

Table 12—**Tuberculosis Welfare Dept.** (Commenced 1st June, 1943).

1943		1944
	Allowances in cash.	
	Total applications granted :—	
214	(*a*) Maintenance	239
46	(*b*) Discretionary (also included in (*a*)	47
24	(*c*) Special Payments	32
150	Patients in receipt of allowances at end of year	209
	Allowances in kind.	
28	Free Milk grants—new cases	79
57	,, ,, ,, —renewals	126
31	Total patients in receipt of milk at end of year	84
28	Allowances in kind—per Voluntary Care Committee	80
	Rehabilitation.	
—	Patients referred to Ministry of Labour for suitable employment	50
—	Patients introduced to Training Centre	—
—	Successfully introduced to employment :—	
—	(*a*) Part-time	3
—	(*b*) Full-time	22

Table 13.—**Venereal Diseases.**

1943				1944			
Guardian House	Avonmouth	Southmead	Clinics	Guardian House	Avonmouth	Southmead	Snowdon Road
1,783	1,055	192	*New Patients*	1,286	534	476	
411	197	55	Syphilis	200	51	39	
18	1	12	,, (congenital, includ. above)	28	—	10	
8	7	—	Soft Chancre	12	19	—	
439	284	52	Gonorrhoea	326	153	73	
925	567	85	Non-Venereal	748	311	364	
1,801	1,055	224	*Total Patients*	2,364	736	704	
48,418	4,818	2,119	*Total Attendances*	28,741	3,989	4,443	
30,573	3,242	2,119	Individual attention by Medical Officer	17,613	2,465	4,426	
17,845	1,576	—	Investigation, Dressings, etc.	11,128	1,524	17	
802	66	122	*Under treatment end of year*	845	79	162	
440	31	40	Syphilis	507	42	72	
3	2	—	Soft Chancre	2	3	—	
337	15	32	Gonorrhoea	146	14	33	
22	18	50	Non-Venereal	190	20	57	
87	—	—	*Inpatients*	40	—	192	45
2,543	—	—	*Inpatient days*	1,167	—	6,471	1,582

Table 14. **Incidence of Venereal Diseases 1937—1944.**

BRISTOL.

	1937.		1938.		1939.		1940.		1941.		1942.		1943.		1944.	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total Syphilis	97	36	94	76	74	74	85	30	144	61	225	73	238	117	152	137
Early Syphilis (included in total) ..	34	10	53	10	43	13	42	8	114	23	182	43	199	73	126	97
Gonorrhoea	439	109	415	107	377	125	331	98	398	124	440	157	526	186	317	235
Chancroid	3	—	5	—	5	—	8	—	2	—	38	—	7	—	31	—

Table 15. **V.D. Welfare Dept.** (From 1st Nov., 1943.)

1943			1944	
M.	F.		M.	F.
899	650	Number of cases on Welfare Officer's Register	703	459
238	138	Number of new cases added during year	1,504	1,107
31	34	Attendances at Clinics	177	191
		Interviewed in Clinics—		
52	50	(*a*) Primary cases	265	379
3	7	(*b*) Current cases	241	493
—	—	(*c*) Hospital In-patients	169	246
		Visiting—		
16	16	(*a*) Primary cases—First visit	140	202
7	8	Second visit	41	27
2	—	Repeat visit	7	2
8	9	Examined	127	163
90	58	(*b*) Defaulters— First visit	529	595
—	—	Second visit	46	84
—	—	Repeat visit	9	12
63	48	Return for treatment	355	369
20	18	Number of visits for other specified purposes	179	218
140	112	Total number of visits for all purposes	958	1,276
16	17	Number of consultations with Voluntary bodies	97	87
		Regulation 33B. (included in above figures)—		
12	15	1—(*a*) Total number for whom Form 1 was received	147	166
15	3	(*b*) Form 1. sent to M.O.H. of other districts	119	34
		2— Number in (1) persuaded to be examined before-named on second Form 1.—		
13	12	(*a*) Contacts found	28	110
9	9	(*b*)—Contacts examined	27	76
1	3	3— Number in (1) for whom two or more Forms 1 were received	2	18
		4— Number of those in (3) who were :—		
1	2	(*a*) found	1	16
—	—	(*b*) examined after persuasion	1	8
—	1	(*c*) served with Form 2	1	10
—	1	(*d*) examined after service of Form 2	2	7
—	—	(*e*) prosecuted	—	4
		Rehabilitation—		
—	—	(*a*) Successfully introduced to employment	18	25
6	5	(*b*) Successfully introduced to club or other suitable organisation	10	5

D.—HOSPITALS, INSTITUTIONS AND NURSERIES.

Table 1—Hospitals.

Beds Occup'd 31.12.43		Beds Provided	No. Admitt.	Births (Live)	No. Disch.	No. of deaths	No. of beds occupied 31.12.44	Waiting List
	Southmead—							
372	General ..	480	4,197	—	3,703	682*	356	82
150	Maternity ..	163	3,596	2,963	6,361		157	—
28	T.B. ..	32	169	—	130	27	59§	—
20	**Cedar Hall—**	20	288	249	574	—	—	—
—	**Mortimer House—**	35	175	166	311	—	19	—
	Snowdon Rd.—							
243	General ..	258	356	—	205	156	241	—
23	T.B. ..	25	44	—	32	16	19	—
	Ham Green—							
168	T.B. ..	184	321	—	249	69	172	5
139	Fevers, etc. ..	314	2,089	—	2,001	56	171	—
	Charterhouse—							
29	T.B. ..	50	60	—	52	—	37	—
12	Fevers, etc. ..	55	107	—	113	—	5	—
100	**Frenchay San.—**	100	264	—	278	4	82	—
58	**Winsley San.—**	58	90	—	87	3	58	9
9	**Other T.B. Insts.**	—	27	—	28	—	8	—
1,351	Totals ..	1,774	11,783	3,378	14,124	1,013	1,384	96

These figures include treatment of service sick and service casualties including civilian war casualties, details of which may not be indicated.

* Including 9 Maternal deaths (6 Bristol 3 Outside City cases).

§ Temporary allocation for evacuated cases.

Table 2—Ambulances.

1943			1944	
No. of Ambulances	No. of Removals		No. of Ambulances	No. of Removals
2	3,826	Infectious Diseases Ambulances ..	2	2,897
1		Southmead General Ambulances ..	1	— Used only for stand by for night duty

Table 3—Nurseries.

No. of Places occupied 31-12-43		No.	Places Provided 31-12-43	No. Admitt.	No. Disch.	No. of deaths	No. of Places occupied 31-12-44	Waiting List
266	(i) Residential ..	(9)	262	523	584	—	194	38
531	(ii) Day	(21)	905	1,116	827	—	437*	153
203	(iii) Residential (adminsr.) by Education Committee) 2-5 years. ..	(4)	150	142	173	—	114	Nil

* Infection at 8 Nurseries.

Table 4—Daily Guardian Scheme.

1943		1944
334	Guardians registered	338
290	,, with babies	315
382	Babies registered	397
337	Babies placed with Guardians	344

E.—SANITATION, HOUSING, SHOPS ACTS etc.

Table 1—**Sanitary Inspectors.**

1943		1944
	Sanitary Inspectors—	
21,164	Visits	21,485
334	Notices	925
247	Notices complied with	528
	Work Done—	
41	New drains laid	33
367	Tests made	228
191	Drains repaired	166
314	Choked drains cleared	593
45	Flushing appliances introduced	25
75	New pans fitted	43
2	Additional W.C.'s	7
81	Other W.C. repairs, etc.	52
—	Cesspools abolished	—
1	Water supplies installed	1
—	Wells closed	1
	Work Done on Dwelling Houses—	
156	Roofs repaired	198
375	Other new work	398
75	Premises cleansed	107
23	House treated for dampness	43
3	Lighting improvements	2
1	Ventilation improvements	4
7	New sinks fixed	15
—	Washing convenience installed	—
—	Food storage, etc.	1
2	Geyser vents, etc.	—
—	Heating apparatus	1
5	Lavatory basins	5
1	Meal rooms	—
—	Other work in shops	—
—	Overcrowding abated	—
18	Underground rooms closed	—
203	Other nuisances abated	357
1	Aged and infirm persons removed	5
3	Smoke observations	—
—	Smoke infringements	—
	Keeping of Animals—	
—	Removal of manure	1
	Housing Acts—	
—	Houses repaired	—
	Public Health Acts—	
2,637	Houses inspected	1,715
2,952	Inspections made	2,026

Table 2—**Dairies, Milkshops, etc.**

1943		1944
	Registered at end of period—	
212	Dairies (City	191
140	„ (O/City retailing within City)	139
731	Milkshops	673
55	Cowsheds	52
1,138	Personal registrations	1.055
524	Ice cream—storage	524
	Licences under Milk (Special Designations) Order, 1936.	
	Tuberculin Tested—	
2	To produce	2
—	To produce and bottle	—
9	To bottle and sell	8
17	To sell only	12
2	Supplementary	2
	Accredited—	
8	To produce	9
1	To produce and bottle	1
—	To bottle	1
—	To sell	—
3	Supplementary	3
	Licences under Milk (Special Designations) Order, 1936.	
	Pasteurised—	
12	To produce and sell	10
55	To sell	52
2	Supplementary	3

1943			1944	
No. taken	No. Not complying		No. taken	No. Not complying
		Samples taken—		
195	15	Pasteurisation test	206	15
827	—	Tubercule Examination	1,116	—
49	16	Tuberculin Tested	127	40
58	14	Pasteurised	62	10
137	26	Accredited	178	44
206	41	Test samples at Institutions	246	13

Table 2—**Dairies, Milkshops, etc.**—*continued.*

1943		1944
	Other samples—	
990	Food and Drugs	1.441
—	Ice Cream	—
136	Water & other matters	238
	Visits—	
1,105	Dairies	1,153
167	Milkshops	197
318	Cowsheds and Farms	544
142	Corporation Institutions	116
202	Schools	206
—	Food Poisoning	—
—	Food Premises	—
—	Premises damaged by enemy action	—
3,927	Others	3.228
	Premises—	
—	New Built	1
—	Altered or repaired	8
7	Cleansed	21
8	Others defects remedied	2
2	Plants installed—(sterlizing)	7
	Drainage—	
2	New Drains	—
2	Repairs and clearance	2
	Water Closets—	
2	Other repairs and Cleansing	16
58	Notices—Verbal and written	53
65	„ Complied with	39

Table 3—Inspection of Meat and other Foods.

1943		1944
	Visits—	
933	Meat Markets	958
806	Shops	1,629
12	Cattle Markets and Railway Sidings	1
—	Fish curing premises	—
32	Sausage making premises	28
—	Cold Stores	—
—	Connection with food poisoning	—
—	Street traders	—
63	Institutions	55
1,301	Slaughterhouses	1,246
—	*Slaughterhouses cleansed*—	—
—	*Slaughterhouses rebuilt repaired or altered*—	—
—	*Sanitary defects, etc., remedied*—	—

1943			1944	
City	Abattoir		City	Abattoir
		Animals examined—		
8,113	10,826	Beasts	8,835	11,659
6,566	3,651	Calves	8,959	9,603
35,218	40,916	Sheep	37,234	40,717
17,840	771	Pigs	13,837	732
469	—	Pigs (New Zealand)	7,963	—
—	—	,, (American)	880	—
		Carcases destroyed—		
196	236	Beasts	262	451
3	3	Calves	17	8
45	15	Sheep	61	48
20	8	Pigs	40	30

Table 3—Inspection of Meat, etc.—*continued.*

1943		1944
Tons		Tons
	Meat destroyed from—	
134	Slaughterhouses and Shops	175
—	Cold Stores	—
104	Abattoir	176
56	Fish, Poultry, Vegetables, etc.	171

Table 4—Disinfections, Drain Tests, etc.

1943		1944
8	No. of vans engaged	5
4,8107	Mileage covered	49,230
12,197	No. of disinfections	8,738
226,757	Articles disinfected	169,557
1,087	Articles destroyed	1,065
65	Fumigations by sulphur	31
408	Sprays	500
115	Baths—Vermin	153
254	Drain Tests	313

Table 5—**Rat Repression. City.**

1943		1944
1,299	No. of complaints received	1,819
191	No action required	436
	Infestation cleared—	
998	(a) by Corporation services	1,252
12	(b) by occupiers	105
62	No. under routine service (Contracts)	—
36	No. complaints outstanding at end of year	26
1,299		1,819
	No. of Niticcs served :—	
1,229	(a) Informal	1,819
1	(b) Formal	—
4,123	Rats caught	3,873
2,051	Mice caught	1,960
120	Rats to University for examination	133

Table 6—**Shops Acts and Young Persons.**

1943		1944
	Shops Acts—	
4,141	No. of shops visited	3,268
856	Revisits	662
526	Infringements	382
36	Assistants' facilities improved	20
69	Verbal warnings	44
—	Warning letters	1
—	Prosecutions	—
—	Convictions	—
	Visits to Cinemas	
	Shops Acts and Sunday Entertainment—	
44	Visits and Revisits	14
14	Infringements	3
	Young Persons (*Employment Act*) 1938—	
10	No. of visits	64
13	,, revisits	25
9	,, infringements	8
9	,, verbal warnings	6
33	Unsatisfactory condition report to C.S.I.	40
	Work undertaken for another authority—	
92	Investigations under Location of Retail Businesses order	196

Table 7. **WATERS, 1944.**

	37°C Count			22°C Count			Presumptive coli in 100 ccs.				Faecal coli present.	TOTAL.
	0–100	100–1000	> 1000	0–200	200–1000	> 1000	0	1–10	10–100	> 100		
CITY MAINS Bristol Waterworks Co.	34	2	0	32	4	0	34	2	0	0	0	36
HOSPITALS with West Gloucestershire Water Company water.	17	0	0	16	1	0	15	2	0	0	0	17
HOSPITALS with Portishead Water Company water.	12	1	0	12	1	0	11	2	0	0	2	13
BRISTOL—other supplies, wells etc.	4	4	0	3	2	3	2	0	1	5	5	8
SOMERSET—other supplies.	5	0	1	3	1	2	0	3	2	1	4	6
GLOUCESTER—other supplies.	45	7	5	33	8	16	24	15	10	8	18	57
MISCELLANEOUS—Ships, Baths, etc.	9	11	9	7	5	17	8	7	6	8	12	29
											41	166

CITY AND COUNTY OF BRISTOL

EDUCATION COMMITTEE

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

R. H. PARRY, M.D., B.S. (Lond.), F.R.C.P., D.P.H.

1944

(THIRTY-SEVENTH YEAR)

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BRISTOL EDUCATION COMMITTEE

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Vice-Chairman – Alderman A. L. H. Smith, J.P.

Medical Services and Child Guidance Management Sub-Committee.
Chairman – Councillor Mrs. D. P. Dobson, M.A., Litt. D., F.S.A., J.P.

Chief Education Officer.
G. H. Sylvester, M.A.

School Medical Officer and Medical Officer of Health.
R. H. Parry, M.D., B.S., (London), F.R.C.P., D.P.H.

Chief Assistant School Medical Officer.
A. A. Dalby, M.C., M.R.C.S., L.R.C.P.
(on active service.)

CITY AND COUNTY OF BRISTOL

Population (estimated June, 1944)	405,530
Elementary Schools :—	
Number of Schools	102
Number of Departments	164
Average Number on Registers	42,555
Average Attendance	37,259

SUMMARY OF WORK DONE DURING 1944.

School Medical Officers :—	
No. of Visits to Elementary Schools for routine inspection ...	358
No. of Children of Code Groups examined in Schools ...	7,748
No. of Re-examinations in Schools	668
No. of Visits to Secondary Schools	115
No. of Children examined	2,796
Dental Surgeons :—	
No. of Children examined	35,802
No. of Children treated	19,096
School Nurses :—	
Cleanliness Survey.	
No. of Visits to Schools	2,052
No. of Examinations of Children	144,489
No. of Homes Visited for uncleanliness	3,202
No. of Homes Visited for " following-up " etc.	5,057
Preparation for Medical Inspection.	
No. of Visits to Schools	424
No. of Children prepared	12,214

SCHOOL CLINICS.

Total Attendances 255,741

	No. of Attendances.	*Work.*
Central Health Clinic –	59,219	Inspection clinic work ; treatment of minor ailments ; asthma clinic ; ear, nose and throat clinic ; zinc ionisation ; dental treatment ; orthodontic treatment ; refraction work ; X-ray treatment of ringworm : treatment of scabies cases ; remedial exercises ; electrical treatment ; massage and foot treatment.
Hotwells Treatment Centre	1,481	Treatment of minor ailments.
Mortimer House Treatment Centre – – –	54	Treatment of minor ailments.
Marybush Lane – –	1,925	Scabies treatment.
Bedminster Health Centre	52,393	Inspection clinic work ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction work.
South Bristol Baths –	5,611	Treatment of minor ailments.
Knowle Casualty Station –	15,664	Treatment of minor ailments.
Speedwell Health Centre –	29,010	Inspection clinic work ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction work.
Verrier Road – – –	5,346	Treatment of minor ailments—mornings only.
Portway Clinic – –	17,517	Inspection clinic work ; treatment of minor ailments ; ear, nose and throat clinic ; dental treatment and refraction work.
Avonmouth Scabies Centre	221	Scabies treatment.
Southmead Clinic – –	34,332	Inspection clinic work ; treatment of minor ailments ; dental treatment and refraction work.
Carlton Park Special School – – –	2,012	Treatment of minor ailments.
Novers Open Air School –	15,327	Remedial exercises and massage ; treatment of minor ailments.
Chest Clinic – – –	2,735	Chest ailments.
Cardio-rheumatic Clinic –	994	Cases of heart disease and acute rheumatic infection.
Artificial light Clinic –	7,259	Cases of anaemia and debility.
Child Guidance Clinic –	1,264	
Speech Clinic – – –	3,001	
Orthoptic Clinic – –	376	

The number of attendances at the Central Health Clinic does not include 2,512 school leavers who availed themselves of the facilities offered by way of Mass Radiography.

CITY AND COUNTY OF BRISTOL
EDUCATION COMMITTEE

REPORT
of the School Medical Officer for the year ended
31st December, 1944,

INTRODUCTION

I have pleasure in presenting my thirty seventh annual report on the work of the School Medical Service.

Having regard to the continued need for economy and the request of the Minister of Education, the report has again been prepared in an abbreviated form.

The best possible use has been made of the depleted medical, dental and nursing staffs, consequent upon the demands of the services, and the medical care and welfare of school children in this city have been well maintained throughout the year.

Untrained adult helpers, appointed in accordance with Board of Education Circular 1604 have greatly assisted in dealing with cases of uncleanliness, and treatment of verminous heads with Lethane Brilliantine has again proved to be very effective. (Page 7).

There has been a marked decrease in the number of cases of scalp-ringworm, due to efficient X-ray treatment (Page 9), and a steady decline in the number of scabies cases, for which, treatment with Benzyl-benzoate solution has been continued as in the previous year. (Page 10).

Activities of the Child Guidance Clinic will be found on Page 12 of the report.

The number of children treated at the Foot Clinic during the year has greatly increased , 2,115 treatments having been given, as compared with 1,324 in 1943. (Page 14).

Early in the year an Asthma clinic was established at the Central Health Clinic. (Page 16). Arrangements were also made for asthma cases to be treated by way of relaxation and correct breathing therapy at the Speech Clinic, after X-ray treatment at the Central Health Clinic, and this has proved an interesting experiment. (Page 19).

The campaign for immunisation against diphtheria (Page 22) has been successfully continued throughout the year, and where children were found to have been immunised two or three years ago, a single " booster " injection has been given.

No deaths from the disease amongst school children were recorded during the year.

The co-ordination of the School Medical Service, and all branches of the Health Department has proved invaluable, and my best thanks are due to Mr. G. H. Sylvester, Chief Education Officer, Mr. H. W. Brand, his deputy, and the teachers of Bristol for their willing co-operation throughout another difficult year.

R. H. PARRY.

STAFF.

The following staff changes have taken place during the year :—

Medical.

Temporary Appointment.

Helen M. Gibb, M.B., Ch B., D.P.H.,—8th February, 1944.

Dental.

Temporary Appointments.

J. B. Wood, L.D.S.,—7th February, 1944.
F. M. Warren, B.D.S.,—28th February, 1944.
Alice Mary Trump, L.D.S.,—1st May, 1944.
W. E. C. Chaplin, L.D.S.,—24th July, 1944.
Miss D. Williams was appointed temporary dental attendant from 10th July, 1944.

Mobilisation.

J. B. Wood, L.D.S.,—8th July, 1944.
W. E. C. Chaplin, L.D.S.,—31st October, 1944.

Nursing.

Resignation.

Mrs. L. Burley,—31st December, 1944.

Temporary Appointments.

In accordance with the suggestion made in Board of Education Circular No. 1604, the following additional temporary appointments as untrained adult helpers were made :—

Mrs. F. Jones—8th May, 1944.
Mrs. B. F. Rutter—11th September, 1944.
Miss E. A. Miller—1st December, 1944.

Child Guidance Clinic.

Miss Isabel Munroe, lent to this country by the Canadian Children's Service, resigned on 19th July, 1944, and Miss D. J. Binning, B.A., was appointed temporary Psychiatric Social Worker, from 1st September, 1944.

Owing to the increase in the number of cases referred to the Child Guidance Clinic during the year, the temporary appointment of Miss Erica M. C. Johnson, B.A., as assistant Psychologist was made on 1st December, 1944.

FINDINGS OF MEDICAL INSPECTION.

A complete medical inspection was made of 7,748 children during 1944. Defects requiring treatment or observation were as follows :—

	Medical Inspection.	
	For Treatment	*For Observation.*
Skin diseases	20	2
Defective Vision	224	56
Squint	30	11
External Eye Disease	30	2
Defective hearing	10	3
Otitis media and other ear diseases	24	5
Enlarged tonsils	104	81
Adenoids	32	22
Enlarged tonsils and adenoids	97	37
Other nose and throat conditions	43	12
Organic heart disease	24	4
Functional	14	7
Anaemia	33	15
Rheumatism	29	13
Chorea	1	—
Orthopaedic and postural defects	192	36
Tb. Pulmonary definite	3	—
Tb. Pulmonary suspected	13	2
Tb. Glands	4	—
Tb. other forms	48	5
Malnutrition	14	23
For Milk and Meals etc.	1	—
Uncleanliness	5	4
Teeth	144	19
Other defect or disease	189	79

Malnutrition.

The classification of nutrition of children seen at school medical inspection in the last 3 years is as follows :—

	No. Inspected	A (Excellent) No.	%	B (Normal) No.	%	C (Sl.Sub.Nor.) No.	%	D (Bad) No.	%
1942	5,656	659	11.65	4,346	76.84	627	11.08	24	0.42
1943	8,118	1,544	19.02	5,781	71.21	783	9.65	10	0.12
1944	7,748	1,391	17.96	5,773	74.51	583	7.52	1	0.01

No. of cases referred for treatment and observation from Medical Inspection, etc.

	1942	1943	1944
	Routine M.I.	Routine M.I.	Routine M.I.
No. examined	5,656	8,118	7,748
Referred for treatment for malnutrition	8	3	14
Received milk/meals	5	6	2
Received C.L.O.M., etc.	–	4	1
Received observation for malnutrition	70	58	23

Nurses' Survey.

	1942	1943	1944
No. surveyed	41,430	51,801	51,534
No. referred to Clinic for malnutrition	38	10	8
No. advised to have milk at school ...	735	1,056	954

Malnutrition cases seen at Clinic.

	1942	1943	1944
No. of cases of malnutrition seen at Minor Ailment Clinics	123	60	47

Milk and Meals.

	1942	1943	1944
Free meals supplied	172,622	146,925	219,173
Free milk/meals supplied	375,657	297,649	329,459

Uncleanliness.

	1942	1943	1944
No. of individual children found with verminous heads	4,009	5,051	4,360
Exclusions from school for verminous head	474	327	580
Prosecutions for verminous head ...	30	35	43

The number of visits to schools made by the nurses during the year for the purpose of examining children was 2,052 compared with 1,816 in 1943. The number of individual children found with verminous conditions during the year was 4,360, showing a small decrease compared with 1943, though still higher than the numbers found in 1942 and 1941.

Vigorous efforts are still being made to deal with this problem and the treatment and cleansing of children found to have varying degrees of verminous conditions was carried out in all clinics during the year, 2,774 individual children being treated. Treatment with Lethane Brilliantine was continued in the clinics as in previous years.

The great majority of the cases were not severe and quickly cleared up after treatment. A number of children were, however, badly infested and in 580 cases children had to be excluded from school. Prosecutions for persistent verminous conditions were taken in respect of 43 children during the year, compared with 35 in 1943.

The difficulties presented by wartime conditions still continue. With many mothers on war work, interviewing by the nurses is still a problem, many visits having often to be paid before the mother can be seen.

SCHOOL NURSES.

Following is a summary of the Nurses' Survey for the year :—

No. of sessions	1,230
No. of children surveyed	51,534
No. with defects	4,595

Of the cases with defects :—

No. already under treatment	448
No. referred to clinic doctor	1,356
No. referred to clinic Eye Specialist	1,178
Minor ailments referred for treatment	480
Underweight children advised to have milk in school ...	945
Will attend own doctor or Hospital	155
Refusals	33

Of the cases referred to Clinic Doctor :—

No. requiring treatment or observation	960
No. discharged—no treatment or observation required	40
No. already obtained treatment	18
No. failed to attend clinic	338
	1,356

The defects referred to Clinic Doctor requiring treatment, or to be kept under observation, were :—

Skin	184
Scabies	100
Eye disease	53
Defective vision	58
Ear disease	29
Nose and Throat	180
Teeth	2
Lungs	2
Deformities	40
Malnutrition	8
Other defects or diseases	310
	966

The total number of visits to schools in respect of verminous conditions and general examination was 2,052 : 144,489 examinations (including 5,121 re-examinations) of children having been made.

Co-operation between nurses and head teachers is very close, and the valuable assistance given by teachers and school attendance officers is greatly appreciated.

Home Visiting.

During the year the number of visits for the purpose of "following up" defects, etc., was 5,057. Other visits in regard to uncleanliness, etc., totalled 3,202.

TREATMENT.

The total number of attendances at the clinic during the year was 255,741.

Skin Clinics.

Scalp Ringworm. 16 cases of scalp ringworm were dealt with during the year, and all except one were treated at the Committee's clinics, 9 by X-Ray—6 otherwise.

The number of cases of scalp ringworm among school children diagnosed at minor ailment clinics during 1944 was 38 (37 Elementary and 1 Nursery). Twenty three of these were, however, subsequently diagnosed by Dr. Bell at Central Clinic as not ringworm, leaving a net figure of 15 (14 Elementary and 1 Nursery). This compares with 86 (84 Elementary and 2 Nursery) in 1943 and 35 (34 Elementary and 1 Nursery) in 1942.

The cases treated by X-Rays in 1944 and the two preceding years are as follows :—

	1942	1943	1944
Elementary Schools ...	29	47	8
Nursery Schools	1	1	1
Total ...	30	48	9

X-Ray Treatment.

Dr. F. Gower Bergin, who is in charge of this department, reports as follows :—

" There has been a decrease in the number of Bristol school children who contracted ringworm. This is satisfactory as it proves the efficiency of X-Ray treatment.

When the clinic started in May 1921 at Portland Square, there were about 600 cases in the Bristol schools. Now there are very few. Quite a number of cases from outside Authorities, (Taunton, Gloucester and Cardiff) have been treated with very satisfactory results."

Body Ringworm.

During 1944, 262 cases of this disease amongst school children were under observation, of which 259 were treated at the school clinics. This compares with 389 cases in 1943 and 309 in 1942.

Impetigo. The school clinics treated 1,798 cases of impetigo during the year, a rapid cure being effected in all cases.

Scabies. The following table shows the number of scabies cases treated in 1944 and the two preceding years.

	School cases	Cases under school age	Adults	
			Women	Men
1942	3,927	1,017	2,405	1,313
1943	3,197	1,014	2,523	1,089
1944	2,321	702	1,846	679

The number of scabies cases dealt with each month in 1944 is as follows :—

	School cases	*Cases under school age*	*Adults*	
			Women	*Men*
January ...	311	105	262	141
February ...	279	72	208	91
March ...	264	73	173	73
April ...	202	71	172	65
May ...	175	48	122	45
June ...	167	74	162	52
July ...	122	47	109	41
August ...	99	40	110	14
September ...	198	56	141	32
October ...	169	40	135	35
November ...	178	36	138	42
December ...	157	40	114	48
Total ...	2,321	702	1,846	679
Comparative Total 1943 ...	3,197	1,014	2,523	1,089

The number of scabies cases in 1944 showed a steady decline during the year, the total cases dealt with being approximately two-thirds of those treated in 1943. This is no doubt attributable, in part at least, to the cessation of " shelter life " due to the absence of air raids on the city.

The standard treatment with Benzyl Benzoate solution or Sulphur Cream in the case of very young children has been continued during the year, and the disinfection of the patients personal clothing and bedding has been carried out as before.

With the drop in the number of cases it was found possible to close the Avonmouth Treatment Centre at the end of September, the patients coming from that area being now treated at the Central Health Clinic. The treatment of men patients was transferred from the Mayor's Paddock Baths to the Marybush Lane Centre adjacent to the Central Health Clinic, the Mayor's Paddock Centre being closed entirely. The treatment centres now in use are, Central Health Clinic, Marybush Lane and Southmead Hospital.

Eye Clinics.

Mr. R. R. Garden, M.B., Ch.B., D.O.M.S., the Committee's Opthalmic Surgeon, reports as follows :—

" During 1944 a total of 3,488 school refraction cases attended the clinics, including 3,072 from elementary, 385 from secondary, 22 from nursery schools and 9 from special schools. Spectacles were not prescribed for 661 of the new cases, but a number of these children will attend for periodical observation. Altogether 1,906 pairs of spectacles were supplied by the school opticians for children examined through the Committee's scheme and 11 by other opticians. In 12 cases the parents made their own arrangements for the examination and purchase of glasses.

The number of attendances for the treatment of external eye diseases during 1944 was 4,405.

New squint cases numbering 208 and 521 from previous sessions (kept under observation or treatment), attended during the year. Of the new patients 117 were referred by the Maternity and Child Welfare Department and 17 attended from Nursery Schools.

The work of the Orthoptic Clinic at the Eye Hospital has been carried on during the year on a part time arrangement and the following table shows the work done at the clinic during 1944.

Total number of cases examined for the first time ...	39
Total number receiving treatment during the year ...	26
Number improved	8
Number receiving treatment twice weekly at the end of the year	6
Total number of attendances for treatment	337

In addition to the cases treated by orthoptics, 64 Bristol school children who have attended the Committee's Eye Clinics or my out-patient clinic at the Eye Hospital have had operations for squint with satisfactory results. In such cases, it is customary for the Orthoptist to carry out an examination before and after the operation for the purpose of estimating the type and angle of the squint, the effects of the surgical work done and to ascertain if orthoptic exercises were also advisable to help in the cure".

Provision of Spectacles.

Glasses are supplied at contract prices through opticians appointed by the Committee and when parents cannot pay the amount due at once, arrangements are made whereby instalments are collected by the Attendance Officers.

Spectacles obtained through school contract arrangements	206
Purchased by parents through school opticians ...	1,700
Purchased privately	23
	1,929

Defects of Nose and Throat.

The number of children found suffering from the above ailments was 1,431 of whom 818 received treatment. Operative treatment of enlarged tonsils and adenoids is performed at the various City Hospitals, 671 cases being so treated.

Aural Clinics.

Mr. Gordon R. Scarff, F.R.C.S. (E), the Aural Surgeon, reports as follows :—

" During the past year, the number of children suffering from aural defects attending the clinic was 236 of whom 146 were suffering from middle ear suppuration.

The treatment of middle ear suppuration is being carried out on the same lines as before—that is dry cleansing of the ear followed by the insufflation of iodised boracic powder. 63 of the more chronic cases have been treated weekly by ionisation. In 15 cases the discharge has cleared up.

When there is any focus of infection in the nose or throat, these cases are referred to the various hospitals for treatment.

The number of chronic cases continues to be small, 42 children were attending for treatment at the end of the year, of whom a small proportion were cases of recent suppuration.

School cases for diagnosis as to enlarged tonsils and adenoids numbered 463 and 28 were also referred from the Maternity and Child Welfare Department."

Child Guidance Clinic.

Dr. Frank Bodman, the Acting Director, reports :—

" During 1944, the Bristol Child Guidance Clinic has examined 411 new cases, 1,039 treatment interviews have been carried out. The Psychological Department has been strengthened by the appointment of a second Educational Psychologist.

During the first quarter of the year, Miss Dunsdon, the Senior Educational Psychologist, carried out a survey of the elementary schools ascertaining the number of educable defectives at present attending infant, junior and senior schools.

In May of this year, arrangements were completed so that *every* child appearing before the Juvenile Courts is examined by a psychologist from the staff of the clinic. The Justices of the Juvenile Court have expressed their appreciation of what is probably a pioneer service in this country.

In the Psychological department, research in the assessment of temperament is being carried out and it is hoped to publish the findings shortly.

Members of the clinic staff have taken part in courses of lectures arranged by the Extra-Mural Department of the University, for Parent-Teacher Associations, and also personnel of the Women's Services. They have also given lectures to the Youth Friendship groups set up by the Youth Committee, to the Teachers Vocational course on Sex Education, and to Infant Welfare Clinics.

The Clinic has been used by arrangement with the Social Science Department of the University to provide practical experience for students reading for the University testamur.

The Acting Director, in the last year, has published, by request, papers on the Emotional Development of the Child in " Mother and Child," on Child Psychiatry in Wartime Britain, in the American Journal of Educational Sociology, and on Homeless Children in a Russian weekly paper.

During 1944, the Acting Director was reappointed temporary lecturer in psychology to the medical faculty of the University. He was also asked by the Nuffield Trust to direct a research into the Social Adaptation of the Institution Child."

Dental Clinics.

Mr. W. H. B. Stride, L.D.S., Supervisory Dental Surgeon, reports as follows :—

"The number of whole time dentists has been increased from 4 to 7 during the year. The panel of private practitioners continues to give a total of 15 sessions a week. Two dental officers, while awaiting their commissions, offered their services, giving in all, 8 months.

The number of elementary children inspected in school was 31,161, and in addition 1,052 nursery school children were seen. The number of secondary school children treated was 348. The number of sessions devoted to inspections was 257 as against 3,243 for treatment, a ratio of 1 : 12.

The number of casual cases seen was 3,365.

Particulars of the work done by the school dentists for mothers and young children under the joint scheme of the Education and Maternity and Child Welfare Committees are as follows :—

	Mothers		Pre-School children
	Expectant	Nursing	
New cases	844	250	753
Attendances ...	2,759	786	1,109

This occupied 334 sessions of the dentists' time."

Orthodontic Treatment.

Attendances at the orthodontic session continue to be very good and while less new cases were seen during the year, this only indicates a larger number attending for re-inspection. As many cases as possible are treated by extractions at the clinic to avoid the necessity of wearing apparatus, and attend regularly, so that the results can be observed and further treatment recommended later if necessary.

New cases	241
No. referred for treatment at Dental Hospital ...	74
No. referred for treatment at Central Health Clinic ...	149
X-Rays	140
Impressions	247

Orthopaedic and Postural Defects.

Mr. Hubert Chitty, M.S., F.R.C.S., the Orthopaedic Surgeon, reports as follows :—

"The clinic continues to flourish satisfactorily. Orthopaedic defects are generally detected early by the School Medical Officers. Most of these cases are treated as out-patients, but where necessary there is no delay in securing their admission for in-patient treatment.

The results continue to be good."

Foot Clinic.

The clinic for the treatment of minor foot ailments opened under the direction of a member of the Incorporated Society of Chiropodists (who is working in a voluntary capacity) has continued to operate during the year.

Mr. L. Tasker, the Committee's Chiropodist, reports as follows :—

" During the year 2,115 treatments were given, of which 416 were cases seen for the first time.

Of the new cases 65 were from Secondary Schools and 341 from Elementary Schools, the remaining 10 cases being from the Maternity and Child Welfare Clinic.

There was a large increase in the number of cases of Verruca, due partly to outbreaks at two of the South Bristol Schools. There were 192 new cases of this kind and it seems probably that owing to the shortage of shoes P.T. is done with bare feet at some schools—a practice which should be discouraged as much as possible.

Cases of incipient deformity (Hallux Valgus, Rigidus and Hammer Toe) are fairly common and the treatment is still hampered by the wartime difficulties in getting suitable footwear.

As previously, certain cases were referred to the Orthopaedic Department for operative treatment and physico-therapy."

The following is a summary of defects treated :—

	Elementary		*Secondary*		*Nursery*	
	1st	*Other*	*1st*	*Other*	*1st*	*Other*
Hammer toes ...	11	46	1	8	1	—
Metatarsalgia ...	5	29	—	—	—	—
Verruca	149	935	43	263	—	—
Pes cavus ...	2	30	1	6	—	—
Foot strain ...	93	146	6	19	—	—
HalluxValgus&Rigidus	11	50	2	2	—	—
Miscellaneous ...	70	121	12	37	—	—
	341	1,357	65	335	1	—

The total attendances of school children for treatment during the year were 2,099. (16 cases of children under school age were also seen).

Cardio-Rheumatic Clinic.

Professor C. Bruce Perry reports :—

"The work of the clinic has continued as usual. The number of children requiring institutional treatment for rheumatic heart disease and chorea (34 compared with 38 last year) shows that there has again been no marked decrease in the incidence of acute rheumatism and chorea. This confirms the check, noted last year, in the downward trend which has been fairly constant during the past 15 years and which was particularly marked during the first three years of the war. Possibly this represents the most that can be hoped for with the present improvement in social conditions. If, as some people think, diet is of importance in the causation of the disease, it is disappointing that the increased use of school meals has not had a more marked effect. It may be that the " protective " value of these meals requires closer investigation and study."

SUMMARY OF CASES ATTENDING CARDIO-RHEUMATIC CLINIC.

	No treatment or restriction.	No treatment, but restriction of games.	Treatment, and attend school.	Treatment, and exclude from school.	Institutional treatment.	TOTAL.
NEW CASES.						
Rheumatic Heart Disease	5	6	—	1	15	27
Chorea	—	—	—	—	7	7
No Organic Disease	129	1	—	—	—	130
Congenital Heart Disease	13	1	1	—	1	16
Various	1	—	—	—	8	9
	148	8	1	1	31	189
RE-EXAMINATIONS.						
Rheumatic Heart Disease	240	71	18	5	8	342
Chorea	57	1	3	—	4	65
No Organic Disease	194	—	2	—	—	196
Congenital Heart Disease	44	17	9	7	2	79
Various	21	—	—	—	1	22
	556	89	32	12	15	704

No. of individual children examined	570
No. of new cases for 1944	189
No. of re-examinations	704
Total No. of attendances	893

Asthma Clinic.

A clinic for the investigation and treatment of children suffering from asthmatic conditions was established at the Central Health Clinic in February, 1944, under the direction of Dr. Mawson.

During the year, 155 school children were seen and advice was given as to appropriate treatment.

Chest Clinic.

1,063 children were examined by the Tuberculosis Officer, of which 364 were old cases and 699 new. Of the latter, 31 were classified as definite pulmonary tuberculosis, 27 as cases of non-pulmonary tuberculosis and 641 as non-tubercular.

Mass Radiography.

Dr. E. E. Mawson reports as follows :—

" Children leaving Municipal Schools (including Secondary Schools) in Bristol in July 1944 were the first group in Bristol to have the services of the City's new Mass Miniature Radiography Unit. Since then December school leavers have had the same facilities, and it is proposed to put them at the disposal in future of all children as they leave the City's schools. The scheme is voluntary and so far the response has been good. The results are given below :—"

	Miniature X-ray.	*With resultant large X-ray examination required.*
Boys.	1,330	64
Girls	1,182	34
Total	2,512	98—just under 4%.

The following figures show the result of this further large X-ray examination :—

Nothing abnormal discovered		46
Conditions requiring no action :—		
Tuberculous	12	
Non-tuberculous	6	
		18
Conditions requiring clinical investigation		20
Failed to respond to invitation to have large X-ray (*See note below*)		14
		98

The following is the result of the clinical investigations which were carried out :—

(a) *Cases diagnosed tuberculous* :—		
No action required	1	
Dispensary treatment (continued)	1	
Recommended for Sanatorium treatment	2	
For observation pro. tem in Mass Radiography Department	2	
	—	6
(b) *Cases diagnosed non-tuberculous* :—		
No action required	10	
Recommended for operation by thoracic surgeon (parents refused)	1	
Already receiving treatment	1	
	—	12
(c) *Not definitely diagnosed*—under observation pro. tem in Mass Radiography Department		2
Total		20 =0·8%

A special effort was made, before the Unit was fully erected and equipped, to give the July school leavers the advantage of miniature X-ray before the schools disbanded for the summer holiday, and the follow-up by large X-ray which was necessary for 75 of these children had to be held over for a month, by which time the children concerned had largely been absorbed into employment. 14 of these 75 children failed to keep any of the several appointments offered. As this survey of school leavers had been the first experience of the Bristol Mass Radiography Unit, the recalling for large film examination had erred on the overcareful side, so the miniatures of these 14 children were reconsidered in the Autumn in the light of further experience. As a result it was only in one case out of the fourteen that it was judged to be desirable to press further. Endless trouble was taken to get this child to attend, including personal visits to the home, but without success and the case has now been dropped.

Although this survey of school leavers has discovered only a very small number of tuberculous cases, smaller than in the adult population in this city or elsewhere, it has been well worth while both from the point of view of the individuals examined and of preventive medicine."

In December 1944, 49 children under school leaving age from the South Bristol Open Air School were examined by Mass Radiography at the request of one of the School Medical Officers (30 boys and 19 girls). Large film examinations were called for in 7 cases with the following results :—

No action required :—		
Tuberculous	1	
Non-tuberculous	1	
	—	2
Nothing abnormal discovered		4
Investigations by bronchogram recommended		1
Total		7

During November and December special Saturday morning sessions for Mass Radiography were arranged for School Teachers wishing to avail themselves of the service. So far 598 (114 men and 484 women) have volunteered for the examination.

Artificial Sunlight Clinic.

During 1944, 303 children of school age were given artificial sunlight treatment. Full details of the cases are given below :—

Defect	Elementary School			Nursery School		
	No. Treated	*Improved*	*Stationary*	*No. Treated*	*Improved*	*Stationary*
General Debility ...	152	109	43	23	15	8
Bronchitis ...	38	27	11	1	1	–
Coughs, etc. ...	13	9	4	2	1	1
Enlarged glands ...	18	12	6	3	1	2
Malnutrition ...	11	6	5	–	–	–
Other defects ...	71	48	23	21	14	7
	303	211	92	50	32	18

Speech Clinic.

Miss D. Wilson, M.S.S.T. reports :—

"The work of the speech clinic has continued to grow, and early in the year a request was made for an assistant. With the promise of help as soon as it could be procured, the waiting list was gradually cleared. This had made all sessions very over-loaded.

Sessions. Seven. Five as class sessions, one for interviewing new cases or for examination of children by the doctor, and one session for writing.

The register now numbers 98.

Attending.

Speech defects	31	
Speech defect plus stammer	28	
Stammer	15	
Asthma	21	
Asthma plus stammer	3	
	—	98

Discharged.

Speech defects	7	
Speech defects plus stammer	6	
Stammer	11	
Bronchial Asthma	7	
	—	31
Under supervision (seen every three months)	7	
	—	7
Left school	2	
Transferred	3	
Discontinued attendance	23	
Admitted but not attended, (owing to distance, illness or mother working). ...	10	
	—	38
Waiting List.		41

Attendances for 1944.

Stammerers	1,408	
,, new cases	26	
	——	1,434
Speech defects	1,002	
,, new cases	46	
	——	1,048
Asthma	495	
,, new cases	24	
	——	519
		3,001

In view of the fact that the speech defect cases preponderate both in those attending and those on the waiting list, more of these cases cannot be dealt with until more help is available.

The Asthma side of the work is continuing satisfactorily. The attendances are well kept up, and mothers and children are most co-operative, making the most of all help given. These children should attend at least twice a week at the beginning of their treatment, as the stammerers did formerly. Mothers have asked if the children could attend every day, as the exercises, relaxing and re-education were proving so helpful. These cases are seen by the Speech Clinic Medical Officer at regular intervals and advice is given to the mothers."

Dr. Irving Bell, Medical Officer to the Speech Clinic, reports :—

" I have been impressed by the progress made by those diagnosed as Asthma on admission. Relaxation and correct breathing therapy has in the majority of cases effected a cure and this without drug treatment—this is a distinct advance on former methods ; these cases are first X-rayed at the Central Health Clinic by Doctor Mawson.

Speech defect cases have also improved on the whole, but, as usual, the stammerer has not responded to treatment as satisfactorily as the other speech difficulties.

Since 1940, stammerers have attended only one clinic weekly instead of two as formerly, and I would strongly advise attendance twice weekly for these cases as well as for the asthmatics."

Medical Treatment of the Pre-school Child.

The following cases were dealt with during the year :—

Eye Disease	108
Otorrhoea	144
Skin diseases	529
Minor ailments	287
Aural Surgeon's cases	58
Eye Specialist's cases	192
Heart Specialist's cases	1
Orthopaedic Specialist's cases	209
Various	206
	1,734

SPECIAL SCHOOLS.

The methods of ascertainment and classification of children in Special Schools have been described in previous reports.

The Committee maintains three schools for mentally defective children and details are as follows :—

Carlton Park Special School, Bristol.

	Boys.	*Girls.*	*Total.*
Admitted during 1944 ...	31	23	54
Discharged during 1944 ...	34	27	61
No. on registers at end of year	80	93	173

Eastcourt House, Malmesbury	*Boys.*	*Girls.*	*Total.*
Admitted during 1944 ...	3	10	13
Discharged during 1944 ...	7	7	14
No. on registers at end of year	10	25	35

"The Cedars," Purton, Wiltshire. (for boys only).	*Total.*
Admitted during 1944	20
Discharged during 1944	2
No. on registers at end of year	18

OPEN AIR SCHOOLS.

Debilitated and physically defective children in need of open air treatment have been accommodated in Bristol at Novers Open Air School, at New Place, Porlock, and Higher Woodcombe, Minehead.

Novers Open Air School, Bristol.

Debilitated children. (including asthma cases).	
Admissions	22
Re-admissions	12
Discharged fit for work	11
Discharged fit for ordinary school	18
Discharged for other reasons	8
No. on registers at end of year	59

Physically defective children.	
Admitted during 1944	21
Discharged during 1944	19
No. on registers at end of year	44

New Place, Porlock.

Debilitated children.	
Admissions	23
Re-admissions	-
Discharged fit for work	4
Discharged fit for ordinary school	7
Discharged for other reasons	8
No. on registers at end of year	25

Physically defective children.	
Admitted during 1944	4
Discharged during 1944	4
No. on registers at end of year	5

Higher Woodcombe, Somerset.

Debilitated Children.	
Admissions	10
Re-admissions	–
Discharged fit for work	–
Discharged fit for ordinary school	2
Discharged for other reasons	*12
*10 of these transferred to New Place, Porlock.	
No. on registers at end of year	17

Physically defective children.

Admitted during 1944	2
Re-admitted during 1944	2
Discharged	*2
*transferred to New Place, Porlock.	
No. on registers at end of year	2

SCHOOLS FOR DEAF AND PARTIALLY SIGHTED CHILDREN.

During the war, deaf and partially deaf children have been evacuated to Ledbury Park Herefordshire and partially sighted children to Farleigh Coombe, Somerset.

These schools, however, closed on the 16th and 21st December, respectively and arrangements have been made for suitable accommodation to be available for the children upon their return to this City.

The figures at the end of the year were as follows :—

Ledbury Park, Herefordshire.

Partially deaf children.

	Boys.	*Girls.*	*Total.*
Admitted during 1944 ...	–	–	–
Discharged during 1944 ...	1	–	1
No. on registers at end of year	1	2	3

Deaf Children.

	Boys.	*Girls.*	*Total.*
Admitted during 1944 ...	2	1	3
Discharged during 1944 ...	3	1	4
No. on registers at end of year	14	21	35
No. from other authorities (included in above)	–	2	2

Farleigh Coombe, Somerset.

Partially sighted children.

Admitted during 1944 ...	4	3	7
Discharged during 1944 ...	5	3	8
No. on registers at end of year	13	8	21

NURSERY SCHOOLS AND CLASSES.

The number of children on the registers at the five nursery schools at the end of 1944 was as follows :—

Barton Hill	141
Filton Avenue	113
Ilminster Avenue	273
Rosemary Street	100
St. Werburgh's	161

A pre-fabricated hut to accommodate two groups of children has been erected in the grounds of Ilminster Avenue Nursery School.

A war-time day nursery class, used as a demonstration nursery for the Fishponds College training students has been opened at the old St. James' Barton Infants' School, and, in addition, seven other classes have been established in various parts of the city.

INFECTIOUS DISEASE.

The number of cases of diphtheria occurring in children of school age during the year was 189 as compared with 152 in 1943, and no deaths from this disease were reported. There were 12 cases of cerebro-spinal fever as compared with 8 cases in 1943.

During 1944, 3,116 children of school age received a full immunising course of inoculations against diphtheria.

The complete figures for the year are as follows :—

Number given full course of immunising inoculations	3,116
Number given a " booster " injection	4,247

As a war-time measure the routine schick-testing of children who received a course of inoculations has been discontinued.

Immunisation Against Diphtheria.

The intensive efforts commenced last year to obtain the immunisation of all Bristol children were continued during 1944. A large proportion of the children were found to have had an immunising course two years or more previously, and these were given the single " booster " injection.

It is interesting to note that diphtheria cases amongst school children in Bristol have been reduced in the last few years, from 618 in 1940 to 189 in 1944.

Diphtheria cases amongst school children.

1940	618
1941	233
1942	187
1943	152
1944	189

PHYSICAL EDUCATION.

Mr. J. Mc. A Milne, Chief Organiser of Physical Education, reports :—

"Although the work is still seriously affected by the shortage of suitable teachers, a reasonably good standard has been obtained in the majority of schools during the year. A considerable amount of experimental work with apparatus has been successfully carried out with certain junior schools, and it is hoped gradually to extend this type of work.

The boys' Physical Training has suffered very badly owing to the number of men in the Forces, but the number of classes attending swimming has been considerably increased and excellent results obtained.

During the year the Committee agreed to appoint pianists for dancing and this has made it possible for a greater number of senior girls' schools to include Modern Dance in their curriculum."

PROVISION OF MEALS.

The service of meals has continued to expand throughout the year. Three new school kitchens have been built by the Ministry of Works, and plans are in hand for the erection of several additional kitchens. At the end of the year approximately 900 children were receiving free dinners and 10,750 on payment. The meals were served from 36 kitchens to the following schools :—Secondary 4, Nursery 5, Technical 1, Commercial 1, Young People's College 1, Elementary 145. The service has been maintained throughout the school holiday periods, and every endeavour has been made to serve ample meals of good quality.

During the year 219,173 free dinners have been supplied as compared with 146,925 in 1943. In addition 329,459 free milk meals were given.

Milk in Schools.

The supply of milk under this scheme was continued, the arrangements being supported by Head Teachers as in former years. The return taken in October 1944 showed that 81.5% of the children in elementary schools were receiving milk either free or on payment.

CO-OPERATION OF PARENTS.

The number of parents present at elementary school medical inspections was 5,379 (69.4%) compared with 5,222 (64.33%) last year.

MISCELLANEOUS.

The following report has been received from Mr. L. A. Tavener, Employment of Children Inspector :—

"During the year there were 1,279 cases of infringement of the Children and Young Persons Act 1933, and Bye Laws made in pursuance thereof :—

By employers	645
By parents	567
By street traders	4
Prosecutions : -	
Final notices, Refusals etc. ...	63
	1,279

These were dealt with as follows :—

Warned	1,216
Final Notices	17
Prosecutions : -	
Taken	2
Withdrawn	2
Not recommended ...	1
Pending	2
Employment cards :—	
Refused	37
Revoked	2
	1,279

During the year 459 children between 13 and 14 years of age were registered for employment, and 2 licences renewed for street trading for children between 16 and 18 years of age.

Entertainments.

3 applications for children to take part in public entertainments under the Children and Young Persons Act 1933, were refused, and 2 licences granted by outside Authorities.

2,035 children were granted permission to take part in 43 entertainments given for charitable purposes."

STATISTICAL TABLES.

ELEMENTARY SCHOOLS.

TABLE I.—MEDICAL INSPECTIONS OF CHILDREN ATTENDING PUBLIC ELEMENTARY SCHOOLS.

A.—ROUTINE MEDICAL INSPECTIONS.

Number of Inspections :—

Entrants	4,433
Second Age Group	255
Third Age Group	3,060
	7,748
No. of other Routine Inspections	—
Grand Total ...	7,748

B.—OTHER INSPECTIONS.

Number of special inspections and re-inspections ...	48,301

TABLE II.

CLASSIFICATION OF THE NUTRITION OF CHILDREN INSPECTED DURING THE YEAR IN THE ROUTINE AGE GROUPS.

Number of Children Inspected	A (Excellent)		B (Normal)		C (Slightly subnormal)		D (Bad)	
	No.	%	No.	%	No.	%	No.	%
7,748	1,391	17.96	5,773	74.51	583	7.52	1	.01

TABLE III.

GROUP I.—Treatment of Minor Ailments (excluding uncleanliness).

Total Number of Defects treated or under treatment during the year under the Authority's scheme :— 23,606

GROUP II.—Treatment of Defective Vision and Squint.

	Under the Authority's scheme
Errors of Refraction (including Squint)	3,054
Other defect or disease of the eyes (excluding those recorded in Group I)	18
TOTAL ...	3,072

Number of children for whom spectacles were

(*a*) Prescribed	1,683
(*b*) Obtained	1,667

GROUP III.—Treatment of Defects of Nose and Throat.

Number of Defects.	Under the Authority's Scheme.
Received Operative Treatment	—
Received other forms of Treatment	145
Total number of defects treated	145

TABLE IV.

DENTAL INSPECTION AND TREATMENT.

(1) The number of children inspected by the Dentist—		
(*a*) Routine age groups		31,161
(*b*) Specials		2,882
(*c*) TOTAL (Routine and Specials)		34,043
(2) Number found to require treatment		23,883
(3) Number actually treated		18,407
(4) Attendances made by children for treatment ...		29,758
(5) Half-days devoted to :—Inspection	257	
Treatment	3,243	
TOTAL ** ...		3,500
(6) Fillings : Permanent Teeth	12,401	
Temporary Teeth	884	
TOTAL ...		13,285
(7) Extractions : Permanent Teeth	4,456	
Temporary Teeth	23,878	
TOTAL ...		28,334
(8) Administrations of general anaesthetics for extractions		11,659
(9) Other operations : Permanent Teeth	5,381	
Temporary Teeth	820	
TOTAL ...		6,201

** In addition 334 sessions were devoted to the treatment of mothers and young children.

TABLE V.

VERMINOUS CONDITIONS.

(*i*) Average number of visits per school made during the year by school nurses	13.2
(*ii*) Total number of examinations of children in the schools by school nurses	144,489
(*iii*) Number of individual children found unclean	4,360
* (*iv*) Number of individual children cleansed under Section 87 (2) and (3) of the Education Act, 1921	—
(*v*) Number of cases in which legal proceedings were taken :—	
(*a*) Under the Education Act, 1921	26
(*b*) Under School Attendance Byelaws	17

* 2,774 individual children were however, treated for varying degrees of verminous condition at the clinics (with parents consent).

TABLE VI.

BLIND AND DEAF CHILDREN.

	1 At a Public Elementary School	2 At an institution other than a Special School	3 At no School or Institution
Blind children ...	—	2 at private school	1
Deaf children ...	8	1 at private school	1

CITY AND COUNTY OF BRISTOL

REPORT

OF THE

MENTAL DEFICIENCY ACTS COMMITTEE

FOR THE YEAR

1944

CITY AND COUNTY OF BRISTOL

MENTAL DEFICIENCY ACTS COMMITTEE

COUNCIL MEMBERS:

The Rt. Hon. The Lord Mayor
(Councillor W. F. Cottrell, J.P.).

F. J. Burgess, Esq. (*Chairman*).

Mrs. A. A. Nunn (*Vice-Chairman*).

W. Baker, Esq.

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CITY AND COUNTY OF BRISTOL

MENTAL DEFICIENCY ACTS, 1913-1938

In pursuance of Article 12 of the Mental Deficiency Regulations the appended report on the work of the Council under the above Acts for the year ended 31st December, 1944, is submitted.

Part I deals with Hortham Colony Certified Institution.

Part II deals with the domiciliary work connected with defectives carried out by the Medical Officer of Health.

Part III contains a Statement of Accounts for the year ended 31st March, 1945.

GEOFFREY KNOWLES,

Deputy Town Clerk.

The Central Library,
Bristol.
June, 1945.

PART I.

HORTHAM COLONY

To the Chairman and Members of the
Mental Deficiency Acts Committee.

Mr. Chairman, Ladies and Gentlemen,

I have the honour to submit my report for the year ended 31st December, 1944.

	Adults.		Children.		Total
	M.	W.	B.	G.	
Number of patients resident ...	226	213	125	87	651
,, ,, ,, on licence ...	71	69	7	4	151
,, ,, ,, absconded	3	—	—	—	3
,, ,, ,, at hospitals	4	6	—	1	11
	304	288	132	92	816

	M.	F.	Total
Number of Bristol patients resident ...	180	130	310
,, ,, ,, ,, on licence ...	45	43	88
	225	173	398
Number of Out County patients resident ...	171	170	341
,, ,, ,, ,, ,, on licence	33	30	63
	204	200	404

MOVEMENTS OF PATIENTS DURING THE YEAR

	M.	F.	Total
Admitted	47	61	108
Discharged and removed	23	46	69
Written off books whilst on licence ...	17	31	48
Deaths	13	9	22
Removed to Mental Hospitals	2	5	7
Discharged—by Board of Control ...	7	9	16
—by operation of law	6	5	11

Health of Patients

A miniature X-ray examination for the detection of pulmonary tuberculosis has been carried out at the Central Health Clinic, Bristol, with the following result:—

No. of patients examined	547
No. of patients negative	531
No. of patients suspected of T.B. and recalled for large film	16

Result of large film examination of suspected cases:—

Negative	7
Active Pulmonary Tuberculosis	3
Quiescent, old standing	2
Bronchiectasis	4

These figures compare favourably with recently reported results of a similar investigation in two war factories where the incidence has ranged from 1·1 to 1·6%, and the percentage needing treatment was from 0·3 to 0·4%.

One hundred and seven low grade and helpless patients were unsuitable for examination by miniature X-ray. Arrangements will be made for these patients to have X-ray examination on large films carried out in the Colony.

I have to thank Dr. R. H. Parry, Medical Officer of Health, for permission to have these examinations done, and Dr. E. Mawson, Medical Director, Mass Radiography Department, Central Health Clinic, for the expeditious way in which the large number of patients were dealt with at the Clinic and for the further examinations at the Colony she carried out on patients suspected of pulmonary tuberculosis.

There has been little illness of a serious nature during the year and no epidemics, though spasmodic cases of infectious diseases, including some cases of a mild form of dysentery, have occurred at intervals. Two of the 22 deaths were due to pulmonary tuberculosis.

Five hundred and seventy-six bacteriological specimens were examined at the University of Bristol Laboratory at Canynge Hall. These were mostly routine examinations for the detection of dysentery or diphtheria carriers. All new admissions have been examined for dysentery and received prophylactic treatment against diphtheria and scarlet fever where necessary.

Nineteen X-ray examinations were carried out at Southmead Hospital and 31 patients were sent there for either surgical or medical treatment, and I wish to bring to your notice once again how helpful Dr. P. Phillips, Medical Superintendent of Southmead Hospital, has been in always managing to find beds for our patients, despite the pressure on accommodation at the Hospital.

The Consulting Staff have, as usual, attended as required, and regular weekly dental sessions have been held.

Licence

No. of patients on licence at end of year 1944 ...	151
No. of patients granted licence during the year ...	61
No. of patients written off the books whilst on licence	48
No. of patients returned from licence during 1944	38

27 of whom were from licence granted during previous years;

11 of whom were from licence granted during current year.

Of the 38 patients returned from licence during 1944—

19 were from Hostels;
9 were from Employers;
10 were from Parents.

Reasons for return were—

	Major fault of patient.	Trivial fault of patient.	No fault of patient.
Male ...	3	6	9
Female ...	1	9	10

Twenty-seven patients were discharged during the year—

	M.	F.	Total
Board of Control—Circular 850 ...	7	9	16
Operation of law	5	4	9
Section 15 Order withdrawn ...	1	1	2

No patients discharged under Board of Control Circular 850 were returned during the year.

Some discharged patients are now serving in H.M. Forces. One male patient who absconded and was discharged is now serving as a L./Cpl. in the Military Police.

School

The average daily attendance has been 111—42 female and 69 male. All school children were mentally retested in the early months of the year.

During the year 23 patients left school—

On attaining the age of 16 ...	8
Licence	3
Found untrainable	12

In addition to school training, high grade school children receive instruction in the adult workshops three afternoons a week.

Increase in Number of Beds

With the consent of the Board of Control, the number of beds has been increased from 608 to 654 as a wartime measure.

Workshops

Stocks of materials have been sufficient to supply all male clothing and all footwear. The work in these departments provides a valuable training for a large number of adult patients of medium and high grades, and high grade school children receive instruction in the work of their choice on three afternoons weekly.

Daily Work (outside the Colony)

The demand for patient labour on local farms has grown considerably during the year, and up to 80 male patients were sent out daily during the harvest season. The average number of male patients on regular daily work throughout the year has been 22, and on casual work 20. It is satisfactory to report that despite the latitude given to such a large number of patients, no complaint as to behaviour has been received.

Farm

In common with other farms of the Corporation's institutions, the management of the Colony farm has been taken over by the Farms Committee of the Bristol Corporation. All our requirements in the way of vegetables are still supplied from the farm. Patients continue to be employed on the farm as hitherto. Parties of female patients were regularly employed on weeding during the summer months and helped considerably in saving the potato crop.

Recreation

The usual recreational facilities have been provided, with the addition of some new out-door games introduced by members of the U.S. Army, who kindly gave a demonstration and supplied equipment.

The annual sports was attended by the Lord Mayor and Lady Mayoress (Alderman and Mrs. F. C. Williams).

Scouts and Guides

A welcome revival has taken place in both troops, which are now very active. The Guides were complimented on their efficiency by the Guide Commissioner when she inspected the troop.

Maintenance

The buildings have been kept in as good a state of repair as is possible with the present restriction of materials. After the war there will be a large amount of repair work and repainting and decorating to be done, and also replacements of furniture, which is now showing signs of wear.

Visits

Dr. R. G. Anderson, Commissioner of the Board of Control, and Miss M. McFarlane, Inspector of the Board of Control, visited the Colony on 21st November, 1944. A copy of their report has been circulated to members.

Lectures

Lectures and demonstrations on mental deficiency have been given to medical students and social workers from the Bristol University, and to the nurses taking the course in Public Health training under the Medical Officer of Health.

Staff

The number of female staff has shown a slight decrease during the year. The male staff strength has remained steady, though still below normal strength.

Male Nurse Elliott has been discharged from the R.A.F. and has returned for duty.

Mr. Rawlings resigned his appointment as gardener during the year on obtaining the post of Instructor at an Approved School.

Mr. Yardley, Deputy Chief Male Nurse, resigned his appointment here on obtaining the post of Deputy Chief Male Nurse at Monyhull Colony, Birmingham.

Four female nurses obtained the certificate of the R.M.P.A. in mental nursing, Departmental Sister Wheeler obtaining a distinction.

One female nurse was successful in the preliminary part of the R.M.P.A. certificate.

One male nurse obtained the certificate in Mental Nursing of the G.N.C.

The Blood Transfusion Service attended here on June 1st, and 53 members of the staff gave blood.

Sixty-nine members of the staff attended the Central Health Clinic for mass radiography examination and were found to be negative.

In response to the Lord Mayor's Christmas appeal for toys for poor children, nearly 200 toys were made by the staff and handed over for distribution.

The recommendations of the Mental Nurses Sub-Committee of the Nurses Salaries Committee were adopted.

The staff savings group and Red Cross Penny-a-Week Fund have been well supported.

Committee

It was with regret that we learned of the death of two members of the Committee during the year—Alderman W. H. Byrt and Mrs. A. E. M. Hampton.

Alderman Byrt had been a member of the Committee from the beginning, and Chairman in 1942 and 1943. He had been in failing health for some time, and asked to be relieved of the Chairmanship in 1943, but remained as a member of the Committee. He always took a keen interest in everything concerning the Colony until his end.

Mrs. A. E. M. Hampton was elected a Non-Council member of the Committee in November, 1937. She had had wide experience in social work and was a valuable member of this Committee.

Mrs. M. L. Gunning ceased to be a co-opted member of the Committee on her election to the City Council.

Once again I have to thank you, Sir, and Ladies and Gentlemen of the Mental Deficiency Acts Committee, for the help you have given me by your interest in and understanding of the work of the Colony.

J. F. LYONS,
Medical Superintendent.

Hortham Colony,
Almondsbury,
Nr. Bristol.

June, 1945.

PART II.

REPORT OF THE MEDICAL OFFICER OF HEALTH

To the Chairman and Members of the
Mental Deficiency Acts Committee.

I have the honour to submit the following report on the domiciliary work of the Committee under the Mental Deficiency Acts, 1913-1938, for the year ended the 31st December, 1944.

Administrative Arrangements

The administrative arrangements for the discharge of the Council's duties under the Mental Deficiency Acts, 1913-1938, apart from the control of Hortham Colony and the collection of contributions towards patients' maintenance, continue to be carried out by specially appointed officers under the supervision of the Medical Officer of Health.

Ascertainment

The new cases which the Local Authority were called upon to deal with during 1944 under the Mental Deficiency Acts, were:

Number.		*Source of information.*
54	...	Local Education Authority.
2	...	Social Welfare Committee.
6	...	Police.
23	...	Miscellaneous.
85		

These cases were dealt with as follows:

20	...	Sent to institutions.
43	...	Placed under supervision.
1	...	Placed under guardianship.
21	...	No action taken.
85		

In addition, on the 31st December, 1944, there were 228 defectives in attendance at Special Schools under the control of the Local Education Authority.

The number of defectives on the 31st December, 1944, ascertained by the Council subject to be dealt with or who might become subject to be dealt with was 1,440, exclusive of the 228 in special schools.

Supervision

On the 31st December, 1944, the number of cases under supervision was 651, compared with 623 for the year 1943.

Guardianship

On the 31st December, 1944, the number of cases under guardianship was 106, compared with 99 for 1943.

Licence

At the beginning of the year there were 125 patients on licence and during the year 57 licences were issued. Sixty-three licences were withdrawn. The number of patients on licence on December 31st, 1944, was 119.

Discharges

During the year 40 mental defectives were discharged from Order, and 21 discharged from supervision. The numbers for the previous year were 41 and 30 respectively.

Deaths

There were 18 deaths among the institution, guardianship and supervision cases during the year, compared with 22 for 1943.

Occupation Centres

The following classes were held:

	Sessions per week.	*Daily average attendance.*
Adult male	5 days	16
Juvenile and Intermediate ...	5 days	36
Low-grade Juvenile	5 days	7
Adult female	5 half days	8

A feature of the Occupation Centre of today is the change over in the classes of trainees. A classroom has been brought into service for the low-grade juveniles. Prior to the war the adult population was in the majority; today the juveniles form about two-thirds of the attendees. Places of employment have been found for the adults, only the most helpless remain, and in the case of the juveniles, the Centres make it possible for mothers to become employed. Though the Centre is very much handicapped in the prevailing conditions, it continues to carry out fully its assistance to the home life and occupation of the patient.

Improvement is evident in the general training; more expressions of appreciation are being received from parents, and patients are being referred back to the Special Schools.

Medical Inspection

The medical inspection and treatment of defectives attending the Occupation Centre is carried out through the clinics and hospitals attached to the health services of the City.

Institutional Care

Six hundred and fifty-five patients are being maintained by the local authority in institutions, of which total 119 were absent from the institutions on licence.

R. H. PARRY, M.D.,
Medical Officer of Health.

Department of Public Health,
Bristol 1.
June, 1945.

PART III.

MENTAL DEFICIENCY ACTS COMMITTEE

Statement of Accounts for year ended 31st March, 1945

EXPENDITURE

Maintenance at Hortham Colony		£
Salaries, wages, etc.		24,773
Provisions		12,425
Clothing, Inmates' and Staff Uniforms		3,119
Drugs, Medical and Surgical Appliances		864
Fuel, Light and Water		5,936
Cleaning Materials and Laundry Wages		1,626
Furniture, Bedding, Linen and Hardware		2,251
Repairs to Buildings		1,817
Transport and Travelling		620
Printing, Stationery, Postage and Miscellaneous ...		1,515
Rents, Rates, Insurance and War Damage Conton. ...		2,765
Installation of Forced Draught Boiler Equipment ...		630
		58,341
Loan Charges		15,397
		£73,738
Maintenance at other Institutions	£	
At Institutions under Orders	14,507	
By Guardianship under Orders ...	4,456	
Removal and other Expenses	102	
		19,065
Occupation Centres		3,660
Supervision and General Expenditure		2,919
TOTAL EXPENDITURE ...		£99,382

INCOME

	£
Hortham Colony	
Occupational training—surplus	369
Superannuation Deductions	649
Rents	267
Miscellaneous	505
Patients' Earnings (proportion)	1,529
Ministry of Health Grant re Nurses' Salaries	3,270
	6,589
Occupation Centre	445
Maintenance of Cases	
Other Local Authorities	35,520
Contributions under Voluntary Agreements	1,686
TOTAL INCOME	£44,240
NET EXPENDITURE	£55,142

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